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ABSTRACT

The current status of education for 1999 is presented as an indicator report, analyzing key data that measure the health of education, monitor important developments, and show trends in major aspects of education. Each year, about 60 indicators are selected that represent a consensus of professional judgment on the most significant national measures of the condition and progress of education at this time, tempered by the availability of current and valid information. The report first presents an overview essay of the information in the individual indicators. Following are the indicators organized into five sections: (1) learner outcomes; (2) quality of education environments (elementary/secondary); (3) quality of education environments (postsecondary); (4) social support for learning; and (5) educational participation and progress. The report includes the text, tables, and charts for each indicator plus the technical supporting data, supplemental information, and data sources. Appendices comprise over half of the publication and contain supplemental tables and notes, estimates of standard errors for the statistics, data sources, a glossary, an index, and a list of selected publications of the National Center for Education Statistics (NCES). (MLF)

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NATIONAL CENTER FOR EDUCATION STATISTICS

the condition of education
1999

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Commissioner's Statement

The National Center for Education Statistics (NCES) gathers and publishes information on the status and progress of education in the United States. The congressional authorization for these activities (with antecedents to 1867) states that the purpose of the Center is to collect and report "...statistics and information showing the condition and progress of education in the United States and other nations in order to promote and accelerate the improvement of American education"—Section 402(b) of the National Education Statistics Act of 1994 (20 U.S.C. 9001). This law also mandates an annual statistical report on the subject from the Commissioner of Education Statistics. This 1999 edition of *The Condition of Education* responds to the requirements of that law.

Interest in education data and indicators: Federal, state, and local policymakers require a variety of information to develop, implement, and monitor policies designed to improve education. Education and business organizations, as well as community groups and citizens, generally want to know how to make and support efforts designed to bring about that improvement. Informed decisions cannot be made without valid information, however. As various groups voice their desires and concerns about our schools, NCES continually seeks to define efficient and effective measures that can meet the demand for timely, useful information, while maintaining high statistical standards. At the same time, the interest in data about new topics has not lessened the need for basic statistical information about educational institutions and trends.

Developing education indicators in one way the Center has participated in widening national discussion about the types of measures needed to serve these diverse purposes. *The Condition of Education* is an indicator report, analyzing key data that measure the health of education, monitor important developments, and show trends in major aspects of education. Unlike most other statistics, an indicator is policy relevant and problem oriented; it usually incorporates a standard against which to judge progress or regression. Indicators cannot, however, identify causes or solutions and should not be used to draw conclusions without other evidence.

Organization of this report: The format of *The Condition of Education, 1999* differs from that of previous years in order to better communicate the contents of the publication to the reader as well as to identify areas in which more research and attention are needed in the field of education research. The *Condition* first presents an overview essay of the information that the reader will find in the individual indicators. The purpose of this essay is to create links between the numerous topics discussed in this publication and construct a comprehensive statistical picture of the condition of education. Following the overview essay are the indicators, with each one appearing on two facing pages: the first page presents statistical results and one or two tables with supporting data, while the second page presents one or more figures that illustrate the major findings of the indicator.

The indicators are organized into five sections: (1) Learner Outcomes; (2) Quality of Education Environments (Elementary/Secondary); (3) Quality of Education Environments (Postsecondary); (4) Social Support for Education; and (5) Educational Participation and Progress. Additional tables and supplemental notes that support the indicators follow the five indicator sections. For those interested in delving deeper into the supporting data, further supplemental tables are available on-line at the NCES Internet site at http://www.nces.ed.gov.

Indicator selection: Each year, about 60 indicators are carefully selected and presented in *The Condition of Education*. The indicators represent a consensus of professional judgement on the most significant national measure of the condition and progress of education at this time, but are tempered necessarily by the availability of current and valid information. The indicators presented here reflect a basic core that can be repeated with updated information on a yearly or cyclical bases, supplemented by a more limited set of indicators based on infrequent or special studies.

The indicators presented in this report were developed using data from various studies carried out by NCES, as well as surveys conducted elsewhere, both within and outside of the federal government. Although indicators may be simple statistics, more often they are analyses—examining relationships; showing relationships; showing changes over time; comparing or contrasting subpopulations, regions, states, or countries; or studying characteristics of students from different backgrounds. New to the *Condition* this year are indicators with statistically adjusted data, such as *Indicator 25*, which presents data on the relationship between the age and level (elementary or secondary) of teachers and their salaries during a period of 28 years. These statistically adjusted indicators demonstrate complex relationships between several variables.

This year's edition contains 22 new indicators, which are integrated throughout the report. In the Learner Outcomes section there are new indicators on reading and arts performance, citizenship skills, and educational outcomes and employment status after college graduation. In the Quality of Educational Environments section on Elementary and Secondary Education, there are several new indicators on the instructional methods used by teachers, the mainstreaming of students with disabilities, and teacher characteristics. In the companion section on the Quality of Educational Environments in Postsecondary Education, there is a new indicator on distance education. The Social Support for Learning section contains new indicators about father's involvement, family characteristics of students, and trends in student financing of higher education. The final section, Educational Participation and Progress, has a new indicator on racial and ethnic isolation in school and several new indicators focusing on the progress of students through higher education.

The utility of *The Condition of Education* should increase as more diverse, high quality data become available, especially as new time series data can be constructed. For example, in early 1999, new data on Internet access in public schools were released in a report from the Fast Response Survey System (FRSS).

Data on early childhood education will greatly expand with the start of the Early Childhood Longitudinal Study, which will follow a sample of children from kindergarten through the 5th-grade, which began in 1998. Plans are also under way for the next wave of the Schools and Staffing Survey (SASS), National Study of Postsecondary Faculty (NSOPF), and National Adult Literacy Survey. In addition, the next round of secondary and postsecondary longitudinal studies will enable us to update what we have learned from the National Education Longitudinal Study of 1988 (NELS:88), the Beginning Postsecondary Students Longitudinal Study (BPS), and the Baccalaureate and Beyond Longitudinal Study (B&B). New data from each of these studies will help us better understand the educational experience in our Nation's schools and colleges.

Availability of NCES data and information: We strive to make our products available in a variety of formats and in language that is appropriate to our diverse audiences. All new NCES publications and many data sets are available on-line through the NCES Internet site at http://www.nces.ed.gov. I hope you find this medium a useful way to access our data. In addition, the National Education Data Resource Center (NEDRC) performs special statistical analyses and tabulations of NCES data sets. NEDRC services are free of charge for state education personnel, education researchers, and others requesting special tabulations. In addition, NCES publications can be obtained at no cost from ED Pubs. To contact ED Pubs, call their toll-free phone number: 1-877-4ED-PUBS (877-433-7827), TTY/TDD: 877-576-7734 or e-mail them at EDPubOrders@aspensys.com or send them a written request at ED Pubs, P.O. Box 1398, Jessup, Md 20794-1398.

I hope that you find the material in this document useful and invite you to send us comments on how we can improve future editions of this report.

Pascal D. Forgione, Jr

Pascal D. Forgione, Jr., Ph.D.
Commissioner of Education Statistics

Acknowledgments

For many years, one name has appeared in these acknowledgments of *The Condition of Education* whose contributions far exceeded the few words accorded to her efforts. As the technical reviewer of NCES's Data Development Division and before that as an NCES staff member and author, no one has contributed more to the technical quality, educational substance, and writing of this publication over the years than Mary Frase.

Dr. Frase recently left NCES to accept a senior management position with the National Science Foundation. In recognition of her many contributions to the development and success of *The Condition of Education* over the years, this volume is hereby dedicated to her. The high standards she has set for the publication will be carried on to the best ability of those to whom this responsibility has passed.

This volume of *The Condition of Education* was authored by a team of analysts under the general direction of John Wirt and Tom Snyder with technical review by Mary Frase, Ellen Bradburn, Marilyn McMillen (Chief Statistician of the NCES), and many others. The authors are mostly from Pinkerton Computer Consultants, Inc., MPR Associates, Inc., and the American Institutes for Research. Rebecca Pratt of Pinkerton Computer Consultants, Inc. was the managing editor of the publication. Graphic design, desktop publishing, and print production for the volume were coordinated by Pinkerton Computer Consultants, Inc.

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Many people have reviewed this volume. Their ideas, high professional standards, discerning eyes, and commitment to quality are crucial to the quality and relevance of this volume.

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Overview of the Condition of Education

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Introduction

Providing a quality education for all students is widely viewed as crucial to the future success of the nation. In 1983, the National Commission on Excellence in Education warned of a "rising tide of mediocrity" in elementary and secondary education in the United States and made a series of recommendations to improve its quality.[1] These recommendations stimulated a school reform movement that continues to expand and evolve. In recent years, international comparisons have shown U.S. students lagging behind those in many other developed nations. The concerns raised by the Commission, coupled with these new studies, have kept improving the quality of education high on the national agenda.

Postsecondary education has not been the target of the same types of reform efforts as elementary and secondary education. However, the demands of changing technologies and maintaining a competitive position in the global economy are making postsecondary education increasingly important to individuals and society, and have led to federal and state policies designed to encourage participation in higher education. Consequently, issues related to access, attainment, affordability, and the quality of instruction are the focus of ongoing attention.

This essay summarizes some of the evidence presented in the current and recent editions of the *Condition of Education* on the progress that has been made in recent years in providing a quality education for all students and the problems that still exist. The discussion is organized into the following major areas: (1) student learning and other longer-term outcomes of education; (2) conditions of learning that are believed to contribute to the quality of education at the elementary and secondary levels, such as curriculum, instructional practices, teachers, technology, and school safety and discipline; (3) conditions of learning that are believed to contribute to the quality of postsecondary education, including the necessity for remedial coursework and the amount of exposure students have to senior faculty; (4) the social support for learning (parental and financial); and (5) the flow of students through the educational pipeline from one level to the next (with an emphasis on equity).

Although the evidence shows progress in improving the quality of education for all students in some areas, it also highlights areas in which further improvements are needed.

I. Learning Outcomes

A first step in assessing the progress that has been made in improving the education of all students is to compare the academic performance of students today with that of students in the past. Data from the National Assessment of Educational Progress (NAEP) provide a common yardstick for making such comparisons at the state and national levels. The news is mixed.

Core Academic Content

NAEP actually consists of two different assessments: the "long-term trend" assessment and the "main NAEP." Each is administered separately. The long-term trend assessment consists of basic competency tests in mathematics, reading, science, and writing that have not changed since they were first administered in the early 1970s. While this stability enables comparison of student academic performance over time, the range of topics covered is limited, and the tests have not evolved to reflect changes in educational curricula and practices.[2]

Since 1990, NAEP has conducted a new type of assessment in addition to the trend tests. These new assessments are founded on a broader framework of core academic content and thought processes than are the trend assessments. They are designed to assess student performance across a wider range of topics in greater depth and breadth than is possible with the trend assessments, and to incorporate newer emphases in the school curriculum on higher-order thinking skills and the use of knowledge in solving practical problems.

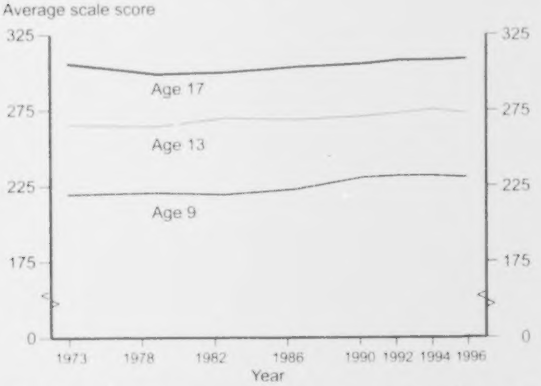
To lend more meaning to the test scores, the National Assessment Governing Board has defined achievement-level standards for these new main NAEP assessments. These standards establish benchmarks representing what students should know and be able to do at different grade levels. The methodology used to establish these achievement-level standards has been criticized. They can be used to track changes in student performance but are developmental and should be interpreted and used with caution.[3] No such standards of achievement exist for the NAEP trend tests.

Mathematics

- *Between 1973 and 1996, mathematics performance improved overall, with stability or early declines followed by improved performance.*

Overall, the long-term trends of mathematics performance were positive for 9-, 13-, and 17-year-olds between 1973 and 1996. After dipping by a few points or remaining the same between 1973 and 1982, the average performance scores of students increased between 1982 and 1996 by 12 points for 9-year-olds, 5 points for 13-year-olds, and 8 points for 17-year-olds. Overall, the average scores of 9- and 13-year-olds ended up being significantly higher in 1996 than in 1973.[4]

Figure I.1. Long-term trends in average mathematics performance scores: 1973–96



SOURCE: U.S. Department of Education, National Center for Education Statistics, *NAEP Trends in Academic Progress (Addendum)*, 1998.

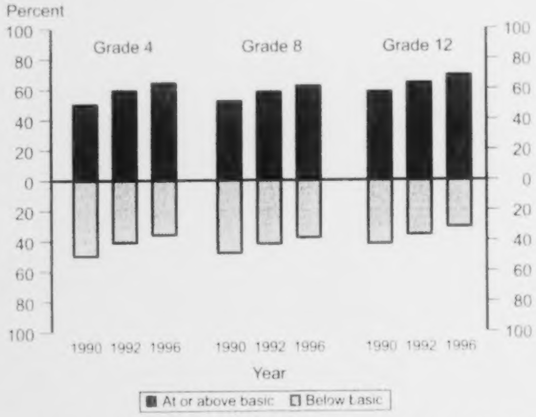
Increases of this magnitude represent substantial differences in student performance. As an illustration, the average mathematics scores of 13-year-olds have ranged between 43 to 50 points more than the average scores of 9-year-olds in all the years in which the NAEP trend assessments have been administered.[5] Since the NAEP trend scores are comparable across age groups, this range of values represents an average difference of about 10–12 score points per year of age.

These increases in mathematics performance followed on the heels of the public clamor over declining student test scores in the 1970s. In addition, the increases generally coincided with the onset of reform initiatives stimulated by the publication of *A Nation at Risk* in 1983, the mathematics curriculum standards issued by the National Council of Teachers of Mathematics,[6] and other initiatives.

The main NAEP assessments in mathematics, which were conducted in 1990, 1992, and 1996, are based on a curriculum framework covering five areas, or "strands," of the school mathematics curriculum: number sense, properties, and operations; measurement; geometry and spatial sense; data analysis, statistics, and probability; and algebra and functions. Cutting across these strands, the mathematics assessment also measures "mathematical abilities" (conceptual understanding, procedural knowledge, and problem solving) and "mathematical power" (reasoning, connections, and communications).[7]

A comparison of national data from the 1990 and 1996 mathematics assessments shows progress in students' mathematics performance over this period. Between 1990 and 1996, the average performance of students improved by 9–11 score points at grades 4, 8, and 12 (*Indicator 2*). The percentages of students scoring at or above the achievement levels adopted by the National Assessment Governing Board also increased. The percentage of 4th-grade students performing at the basic level or above increased from 50 percent of students in 1990 to 64 percent in 1996. In the 8th grade, the increase was from 52 to 62 percent of students, and in the 12th grade, from 58 to 69 percent of students.

Figure I.2. Percentage of students at or above basic achievement levels: 1990, 1992, and 1996



NOTE: See supplemental table 2-1 for an explanation of the basic levels of mathematics achievement.
SOURCE: Indicator 2, Condition 1999.

In 1990, 1992, and 1996, the main NAEP assessments have been administered to sufficient numbers of 4th- and 8th-graders in many states to develop state-by-state estimates of student performance. Among the 31 states participating in the 8th-grade assessments in both 1990 and 1996, 26 improved and none declined.

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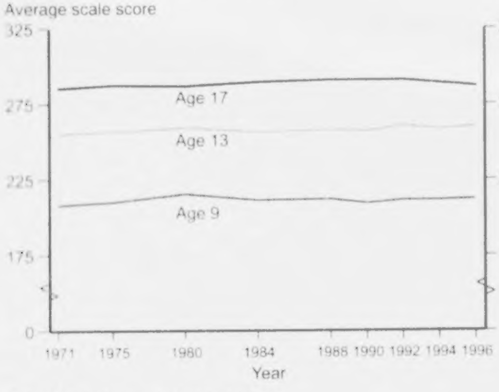
Reading

- *Little change occurred in the long-term trends in students' reading performance between 1971 and 1996.*

The overall pattern of reading achievement has changed minimally over the assessment years from 1971 to 1996. The reading scores of 9- and 13-year-olds increased slightly (by 7 and 4 points, respectively) between 1971 and 1980 but then returned to their former levels or remained the same (*Indicator 4*). The reading scores of 17-year-olds were not significantly higher in 1996 than they were in 1971.

Figure I.3. Long-term trends in average reading performance scores: 1971–96



SOURCE: Indicator 4, Condition 1999

The curriculum framework on which the main NAEP assessment in reading is based specifies three different purposes for reading: literary experience, information, and performance of a task. Within each of these purposes, the test assesses four aspects of comprehension: initial understanding of the text as a whole, discerning connections and relationships among ideas within the text, relating personal knowledge to the text ideas, and standing apart from the text to consider it objectively.[8]

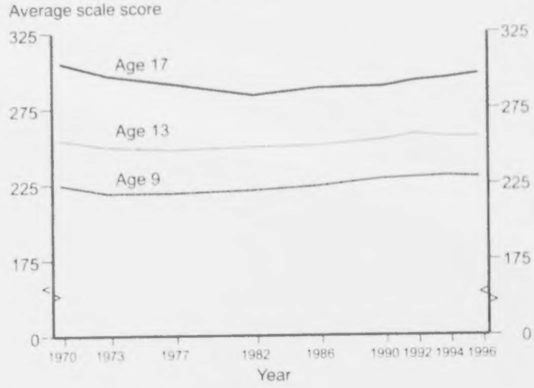
Between 1992 and 1998, average reading performance scores remained the same for 4th-graders but increased by 4 points for 8th-graders (*Indicator 5*). The average reading scores of 12th-graders dropped between 1992 and 1994 but then returned to their original level in 1998. Between 1994 and 1998, the total percentage of students scoring at the basic level or above increased from 70 to 74 percent for 8th-graders and from 75 to 77 percent for 12th-graders, while for 4th-graders there was no significant difference in average reading scores.

Science

- *In science, long-term achievement fell between 1970 and the early 1980s but then rose through 1996.*

At ages 9, 13, and 17, students' average scores in science declined or remained the same between 1970 and the early 1980s and then began to climb. As in mathematics, these increases generally coincided with the major emphasis placed on improving student achievement in science following the publication of *A Nation at Risk* and broad-based reform efforts in science education. By 1996, students' science scores were 13 points higher at age 17 than they had been in 1982, 6 points higher at age 13, and 9 points higher at age 9 (*Indicator 1*).

Figure I.4. Long-term trends in average science performance scores: 1970–96



SOURCE: Indicator 1, Condition 1999

Racial–Ethnic Differences in Achievement

- *Between the early 1970s and the mid- to late 1980s, the performance scores of black students improved relative to those of white students in reading, mathematics, and science at all ages (9, 13, and 17). Since then, these differences in performance between blacks and whites have either widened again or remained the same.*

Attaining a high-quality education has historically been seen as a way of improving one's prospects in life. This is especially true for those who are socially and economically disadvantaged. As a group, black students are at an educational disadvantage compared with white students for several reasons: the average level of black students' parental education has generally been lower (*Indicator 36* and *Indicator 44*, Condition 1998); higher proportions of black students have come from families with low incomes;[9] and larger proportions of black students

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have come from single-parent households (*Indicator 36* and *Indicator 44*, Condition 1998).

In general, black students have scored lower than white students on the NAEP trend assessments in mathematics, science, and reading. However, from the early 1970s to the mid- to late 1980s, the black–white gaps narrowed considerably in all three subjects at all three ages assessed (ages 9, 13, and 17). After this period and up to 1996, there were no further reductions in these gaps.

In science, the gap between the average scores of black and white students at age 9 on the NAEP long-term assessment narrowed by 21 score points between 1970 and 1986—the black–white difference was 57 score points in 1970 and 36 score points in 1986 *(Indicator 1)*. At age 13, the difference in black–white scores declined from 49 points to 38 points, closing the gap by 11 points. At age 17, the difference fell from 54 to 45 score points, closing the gap by 9 points. Between 1986 and 1996, there were no further statistically significant changes in the black–white performance gap in science.

Table I.1 Change in black–white differences in average science performance scores: 1970–96

	Years		Overall
Age	1970–86	1986–96	1970–96
9	*21	-1	*20
13	*11	-2	*9
17	*9	-2	7

* Significantly different from zero.

SOURCE: Indicator 1, Condition 1999.

In mathematics, blacks gained 10–22 points relative to whites at ages 9, 13, and 17 during approximately the same period as the scores of blacks rose in the long-term assessment in science (1973–86). These improvements reduced the black–white score difference by about one-third at age 9, one-half at age 13, and one-quarter at age 17. But between 1986 and 1996, no further statistically significant changes in black–white score differences occurred. In 1996, the differences in black–white scores were 25, 29, and 27 score points at ages 9, 13, and 17, respectively.[10]

Table I.2 Change in black–white differences in average mathematics performance scores: 1973–96

	Years		Overall
Age	1973–86	1986–96	1973–96
9	*10	0	*10
13	*22	-5	*17
17	*11	2	*13

* Significantly different from zero.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *NAEP Trends in Academic Progress (Addendum)*, 1998.

Between 1971 and 1988, there were similar reductions in the black–white gap in reading performance: 15, 21, and 33 score points at ages 9, 13, and 17, respectively.[11] In the second period between 1988 and 1996, some of the ground gained in the first period was lost: The differences in black–white scores widened again by 13 score points at age 13.[12] The gaps at ages 9 and 17 also increased but were not statistically significant.

Table I.3 Change in black–white differences in average reading performance scores: 1971–96

	Years		Overall
Age	1971–88	1988–96	1971–96
9	*15	-1	*14
13	*21	*-13	8
17	*33	-9	*24

* Significantly different from zero.

SOURCE: Indicator 4, Condition 1999.

The pattern of declining gaps in performance scores from the early 1970s to the mid- to late 1980s, followed by stability or increases, has been less pronounced for Hispanics than for blacks. Among 13-year-old Hispanics in mathematics and science and 17-year-old Hispanics in reading, the pattern of narrowing gaps followed by stability or declines has been similar to that for blacks. For 17-year-olds in mathematics, the gap in performance scores between Hispanics and whites has steadily narrowed—from 33 score points in 1973 to 21 score points in 1996 *(Indicator 18*, Condition 1998). Otherwise, there have been no statistically significant trends in the test score differences between Hispanics and whites during the assessment periods. For both blacks and Hispanics, average performance scores have remained lower than those of whites.[13]

International Comparisons

A different perspective on student performance can be gained from the assessments of science and mathematics conducted in 1995 by the Third International Mathematics and Science Study (TIMSS). TIMSS, which compares the mathematics and science performance of students around the world, was designed to measure not only student performance but also how conditions of teaching, curriculum, textbooks, student lives, and other policies and practices differ among countries and are related to test scores. In the United States, the TIMSS achievement tests were administered at the 4th, 8th, and 12th grades. The tests measured student performance in certain core strands of the curriculum in mathematics and science (such as data represen-

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tation, analysis, and probability in mathematics) across countries. The results provide a starting point for efforts to define the term "world-class education."[14]

- *In both mathematics and science, U.S. students scored above the international averages in grade 4, close to the international averages in grade 8, and considerably below the averages at the end of secondary school.*

Fourth-graders in the United States scored above a 26-nation average in both mathematics and science in 1995 (*Indicator 3*). In science, only Korean students outperformed U.S. 4th-grade students, whereas in mathematics, U.S. students outperformed their peers in 12 countries, had scores similar to those in 6 countries, and scored below their peers in 7 others. In contrast, at the end of secondary schooling (12th grade in the United States), U.S. students, including our most advanced students and those of other countries, scored among the lowest of the 21 participating nations in both mathematics and science. Eighth-graders scored close to the international averages, which is somewhat above the 41-nation average in science but somewhat below the average score in mathematics.

Table I.4 Number of countries with average TIMSS scores in mathematics and science that are higher, similar, or lower than the United States: 1995

Grade level and subject	Higher than United States	Similar to United States	Lower than United States
Grade 4 (in most nations)			
Mathematics	7	6	12
Science	1	5	19
Grade 8 (in most nations)			
Mathematics	20	13	7
Science	9	16	15
Last year of secondary school			
Mathematics	14	4	2
Science	11	7	2

NOTE: See supplemental note to Indicator 3 for countries not meeting sampling or other guidelines.

SOURCE: Indicator 3, Condition 1999.

Adult Literacy

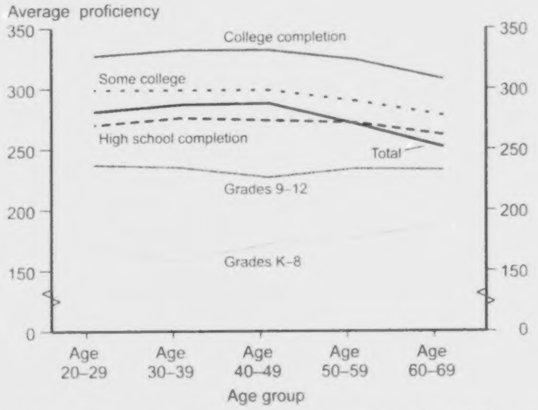
The knowledge and skills measured by student achievement tests are part of the larger educational goal of helping students become literate. The literacy skills developed in schools and colleges are intended to equip individuals for life in the modern world and provide them with the ability to earn a living and contribute to the welfare of society.

- *Adults in the population with more education have higher literacy skills.*

Results from the 1992 National Adult Literacy Survey (NALS) suggest that education has long-term effects on the literacy skills of the population. The NALS assessment measured literacy skills in three domains: prose, document, and quantitative literacy. These domains represent not only the traditional literacy skills of being able to understand and interpret text but also the skills necessary to manipulate and use information to perform practical tasks.

At least in the prime working years of adults from their 20s through their 50s, average literacy scores vary more by educational attainment than by age. The average literacy scores of those within an age group who have attained more education were higher than the scores of their peers with lower educational attainment. At the same time, average literacy scores at a given level of educational attainment were generally the same across age groups; that is, literacy scores generally did not increase or decrease from one age group to the next.

Figure I.5. Average prose literacy scale scores, by age and educational attainment: 1992



NOTE: College completers include 2-year associates, bachelor's, and post-graduate degree recipients.
SOURCE: U.S. Department of Education, National Center for Education Statistics, *Adult Literacy and Education in America: Four Studies Based on the National Adult Literacy Survey*, 1998.

In 1992, average prose literacy scores for the total U.S. population were somewhat higher for each successive 10-year age group between the ages of 16 and 49 but lower for those between the ages of 50 and 59. These differences may be partly due to some individuals completing their formal education after the traditional college age. In the NALS cohort, 19 percent of 20- to 29-year-olds were col-

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lege graduates, as were 29 percent of 30- to 39-year-olds and 33 percent of 40- to 49-year-olds. These differences in prose literacy may also be partly due to the development of literacy skills through work experience and various types of formal and informal learning, at least among those under age 49. The lower prose literacy scores among those age 50 or over may be due to both the loss of literacy skills (a maturational effect) and the lower educational levels of older populations (a cohort effect).[15]

The relative stability of prose literacy scores by age within levels of education suggests that education has lasting effects on the development of literacy skills. Such stability also indicates that these effects may be greater than the effects of work and life experience.

However, these large differences in prose literacy by amounts of schooling may also be partly due to a number of background or antecedent factors that are not shown in figure I.5. These include differences in the family background of youth (e.g., parental education and family income), race–ethnicity, and gender. Educational attainment is associated with such factors, and, therefore, they may contribute indirectly to the relationship between education and literacy shown in figure I.5 through their effects on the education received by individuals. A more complex statistical analysis is needed to show the direct relationships of both educational attainment and these other factors (such as race–ethnicity or parental education) to literacy, as well as the indirect relationships of these other factors to literacy through their relationships with educational attainment.[16] When these other background factors are taken into account, the differences shown in figure I.5 diminish but remain statistically significant.[17]

Results from the 1994 International Adult Literacy Study (IALS) add perspective to the differences in prose literacy scores by educational level found in NALS. IALS assessed the literacy skills of representative samples of the adult population ages 16–60 in the same literacy domains as NALS. The percentage of U.S. college graduates with literacy scores of 3.0 or more (out of 5.0) was only exceeded by the share of college graduates of one other country (Belgium; *Indicator 8)*. At the same time, the percentage of U.S. high school dropouts with literacy scores of 3.0 or more was only lower than the percentage of secondary school dropouts of one other country (Poland). In this respect, the United States had the greatest difference in literacy scores by educational level.

Economic Outcomes

Education has a long-term effect on personal income. At least one reason for completing more education is to enter higher-paying occupations and careers than are available to those with less education. Increases over time in the rates of employment and earnings for individuals with more education signal growing demand in the economy for these better-educated people relative to their supply.

- *Since 1971, the differences in the employment rates of those with more and less education have generally increased for both males and females.*

The effects of education on employment can be determined by comparing the employment rates of young adults ages 25–34 according to their level of educational attainment over time. It is useful to base such comparisons on people in this age group because most of them have already completed their formal education, yet they still have not accumulated much work experience, which employers value in addition to education.

The gaps in the employment rates of males with a bachelor's degree and those without a college education have grown since 1971. In that year, 93 percent of males ages 25–34 with a bachelor's degree or more were employed, while the employment rate for high school dropouts was 88 percent, a difference of 5 percentage points *(Indicator 11)*. Since 1971, the employment rate for male college graduates has remained at about 93 percent, while it has fallen for male high school dropouts. In 1998, the employment rate for male high school dropouts was 79 percent, or 14 percentage points less than that for male college graduates. Among male high school completers, the employment rate fell from about the same rate as that of college graduates in 1971 (94 percent) to 87 percent in 1998, a difference of 7 percentage points. During the 1970s, there was a precipitous drop in the proportions of male high school dropouts ages 25–34 who were employed.

For female, the patterns of employment by educational status have been different, primarily because of their growing participation in the work force since 1971. The employment rate of female high school dropouts ages 25–34 has risen, although not as fast as that of female with more education. Although the employment rate for female high school dropouts increased by 12 percentage points between 1971 and 1998, it increased by 27 percentage points for female college graduates (*Indicator 11*). The employment rate for female college graduates in 1998 was 84 percent.

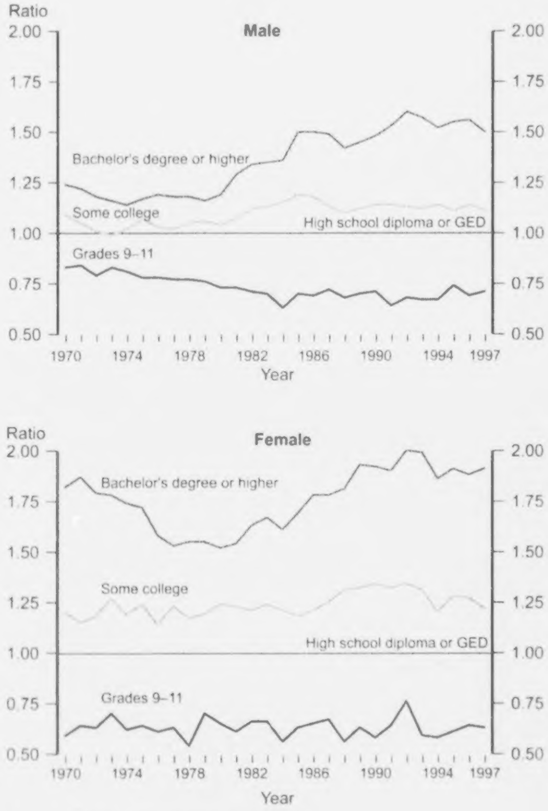
- *The difference between the earnings of 25- to 34-year-olds with a bachelor's degree or more and the earnings of their peers who have completed high school has increased for both males and females since 1980.*

The benefits of more education also generally include earning higher incomes than those with less education. These increments to earnings from having more education can be called the "earnings advantage" of education. In 1980, the median annual earnings of male wage and salary workers ages 25–34 with a bachelor's degree or more were 19 percent higher than the earnings of high school completers (*Indicator 12*). In 1992, they were 60 percent more, which is among the highest levels of the earnings premium for 4 years or more of college education since the 1950s.[18] This earnings difference declined somewhat after 1992 to 50 percent in 1997. The earnings advantage from completing some college also increased between 1980 and 1997, but not by as much as the increase for college completion. Conversely, the median earnings of male high school dropouts relative to male high school completers remained about the same between 1980 and 1997.

Although females ages 25–34 with a bachelor's degree or more have also earned more than their counterparts with less education, since 1970 the earnings differentials between these educational levels have been consistently higher for females than males. In this respect, females' earnings have been more closely related to the education they have received than males. The baseline for measuring this earnings advantage is high school completion.

Relative to the earnings advantage of males, females' earnings advantage from having more education has declined since 1970. The earnings advantage of females compared with that of males can be traced over time at each level of educational attainment. This can be done by dividing the earnings advantage of females at each educational level by the earnings advantage of males at the same level to obtain the ratio of these two quantities. Ratios close to 1.0 indicate that the earnings advantage for females is the same as the earnings advantage for men. In 1970, the ratio of the earnings advantage for females with a bachelor's degree or more to male with the same level of education was 1.47. Since 1970, as females have entered the labor force in larger numbers, their earnings advantages at the different educational levels have become closer to those of males. However, females' earnings remain lower than males' at all levels of education. Although the ratios of females' earnings to males' earnings have increased at all levels of educational attainment since the 1970s, they remain less than 1.0.

Figure I.6. Ratio of median annual earnings of wage and salary workers ages 25–34 with different educational levels versus those with a high school diploma or GED: 1970–97



SOURCE: Indicator 12, Condition 1999.

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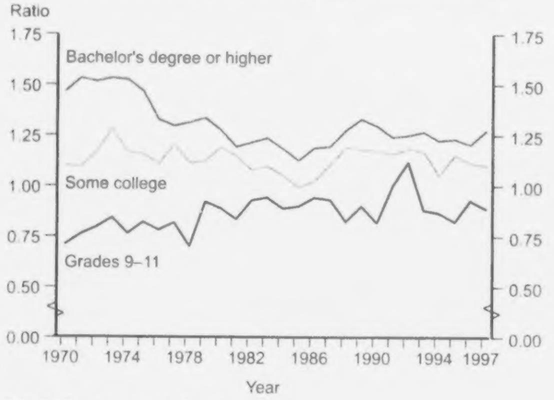
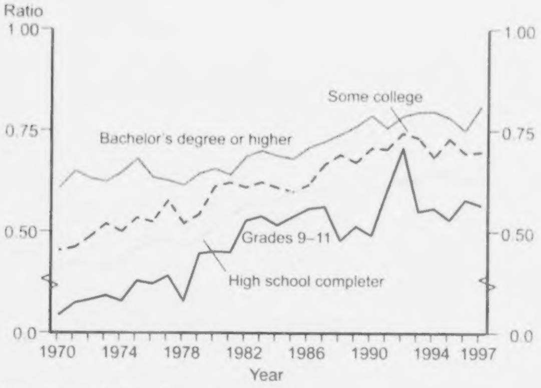
Figure I.7. Earnings advantage of females expressed as a ratio to the earnings advantage of males: 1970–97



SOURCE: Indicator 12, Condition 1999.

Figure I.8. Ratio of female's to male's earnings: 1970–97



SOURCE: Indicator 12, Condition 1999.

II. Quality of Educational Environments (Elementary/Secondary)

Early approaches to school reform that followed publication of *A Nation at Risk* called for longer school days and years, more testing, more rigorous academic programs in high school, stricter certification requirements for teachers, higher salaries for teachers, and upgraded technology. More recently, reform efforts have shifted in emphasis from school inputs to what occurs in the classroom—in terms of curriculum, instructional practices, and methods of student assessment—and also how to prepare teachers to address the new demands being placed upon them.

Summarized here are some recent national data on important aspects of the quality of the educational environment at the elementary and secondary levels, including coursetaking and standards, use of new instructional practices, access to technology, and teachers' preparedness to meet new challenges. Unless otherwise indicated, data include both public and private schools.

Coursetaking and Standards

One recommendation in *A Nation at Risk* was that all high school students seeking a diploma be required to take a "New Basics" core curriculum consisting of 4 years of English and 3 years each of social studies, science, and mathematics.[19] Since the recommendation was made, high school students have been taking more courses in core subjects and more difficult courses in these subjects.

- *High school students are taking more courses in core subject areas than previously taken.*

Between 1982 and 1994, the proportion of high school graduates who took the New Basics curriculum in core subjects increased dramatically from 14 to 51 percent (*Indicator 28*, Condition 1996). During the same period, the percentage meeting a less restrictive standard (2 rather than 3 years of mathematics and science but the same English and social studies requirements) increased from 31 to 74 percent.

One indication of the amount of support for higher standards is the number of districts requiring their high school graduates to take the New Basics curriculum. In 1993–94, 20 percent of all public school districts required their graduating students to meet this standard for English, mathematics, and science, up from 12 percent in 1987–88 (*Indicator 26*, Condition 1998). Districts were most likely to require the 4 years of English recommended (85 percent). They were less likely to require 3 years of mathematics (45 percent) and least likely to require 3 years of science (25 percent). In most states, public school districts were more likely to meet or exceed the requirements for English than for mathematics or science (Table 26-1, Condition 1998).

- *High school students are taking more difficult courses.*

High school students are taking more difficult courses in mathematics and science. Between 1982 and 1994, the percentage of high school graduates taking Algebra I and the percentages taking higher-

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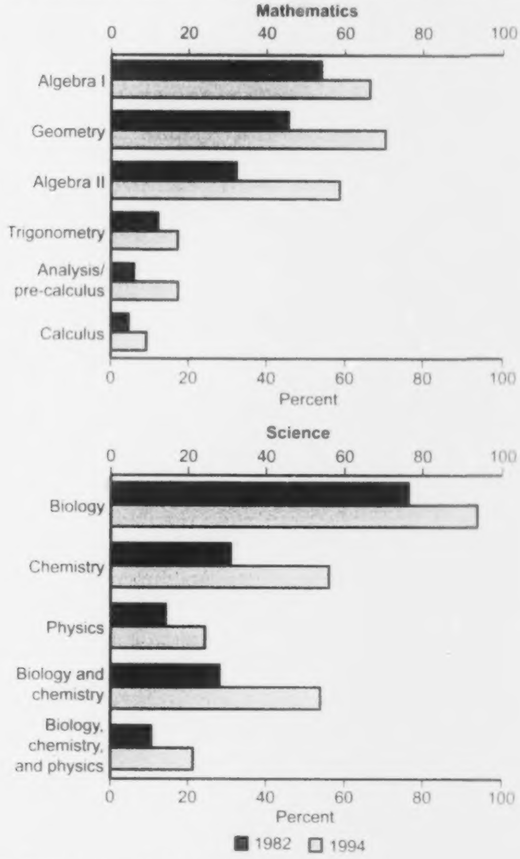
level mathematics courses in high school increased substantially (*Indicator 29*, Condition 1996). In addition, the percentages of students taking biology, chemistry, and physics increased, as did the percentage taking both biology and chemistry and the percentage taking all three courses (biology, chemistry, and physics).

Figure II.1. Percentage of high school graduates who took selected courses in high school: 1982 and 1994



SOURCE: Indicator 29, Condition 1996.

Further evidence of more challenging high school programs is the increasing proportion of students taking college-level courses while still in high school. Between 1984 and 1997, the number of students who took Advanced Placement (AP) examinations (in any subject) rose steadily from 50 to 131 per 1,000 12th-graders (*Indicator 14*).

Instructional Practices

Recent reform efforts have called on teachers to adopt new goals for the classroom, change how they interact with students, and learn how to use new tools for learning and assessment.[20] For example, teachers have been asked to help students develop higher-level thinking skills as well as master basic skills, engage students more actively in discussions rather than lecturing to them and assigning routine work, and use portfolios (collections of student-generated work) as a classroom tool and as a method for assessing students' progress.

- *The majority of teachers report engaging their students in activities designed to promote higher-level thinking skills.*

In 1994–95, 64 percent of all teachers reported requiring students, on at least a weekly basis, to explain how what they had learned in class related to the real world, 59 percent asked students to solve problems with several answers, and 59 percent assigned problems with several methods of solution (*Indicator 15*). Teachers were generally less likely to report asking students to engage weekly in various higher-level tasks in their homework, such as applying concepts in a new context (43 percent), working on projects or experiments (23 percent), or working on problems with no obvious solution (13 percent).

- *The majority of teachers report requiring students to participate actively in class.*

Teachers are being asked to concentrate on helping students build knowledge rather than just memorize facts, and this requires different instructional strategies. When asked how often they required students to perform certain activities designed to support this goal, most teachers (85 percent of public school teachers and 86 percent of private school teachers) reported that they required students to engage in discussion primarily with the teacher at least once a week (*Indicator 37*, Condition 1997). Similarly, most teachers (85 percent of public school teachers and 84 percent of private school teachers) required students to respond orally to open-ended questions. Teachers were less likely (67 percent of public school teachers and 70 percent of private school teachers) to require students to complete a worksheet or workbook emphasizing routine practice at least once a week (a classroom activity associated with more traditional approaches to instruction).

- *The majority of public elementary school teachers are using portfolios.*

During the 1994–95 school year, 72 percent of public elementary school teachers reported using

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portfolios (collections of students' work) as an instructional tool (*Indicator 38*, Condition 1997). Teachers using portfolios employed them at least once a week to diagnose student learning problems (53 percent), plan for future lessons (48 percent), train students to reflect upon and/or assess each piece of work (37 percent) or their overall progress (31 percent), make informed decisions about student placement (24 percent), determine student grades or prepare other formal progress reports (22 percent), communicate student progress to parents (18 percent), and provide information for program or school accountability purposes (12 percent).

Access to Technology

The rapid growth in the use of new technologies in the workplace and society has put pressure on schools to acquire computers, software, and Internet access and on teachers to integrate this technology into their classroom activities. Access to technology in the schools has increased dramatically in the past few years, as has student use of computers both at school and at home. As a result, students potentially have access to a vast array of learning opportunities. As described below in the section on teacher preparedness, however, the majority of teachers do not believe that they are very well prepared to use this new technology in their classrooms.

- *Access to the Internet has grown dramatically.*

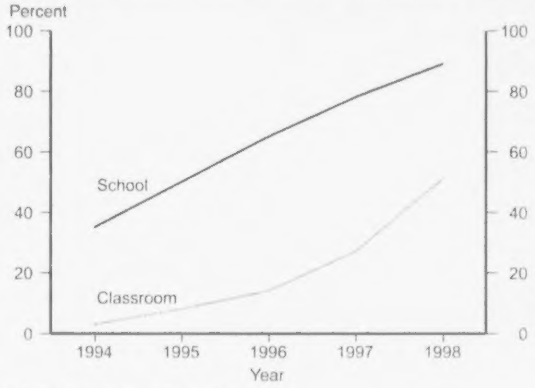
The Internet can broaden the educational resources available to teachers and students by providing access to remote sources of information. In fall 1998, 89 percent of public schools were connected to the Internet, up from 35 percent just 4 years earlier (*Indicator 17*). Coverage at the classroom level is lower (51 percent of instructional rooms had Internet access in 1998), but the growth has been impressive: Only 3 percent of public school instructional rooms had Internet access in 1994.

- *Student use of computers is increasing at school and at home.*

With computers, students can retrieve information, manipulate data, and display results efficiently and creatively. In 1997, 76 percent of students in grades 1–12 used a computer at school (up from 62 percent in 1993), and 45 percent used one at home (up from 25 percent in 1993; *Indicator 18*).

In 1997, students used computers for many purposes. These included school assignments (49 percent), word processing (34 percent), Internet access (18 percent), graphics and design (15 percent), and e-mail (13 percent).

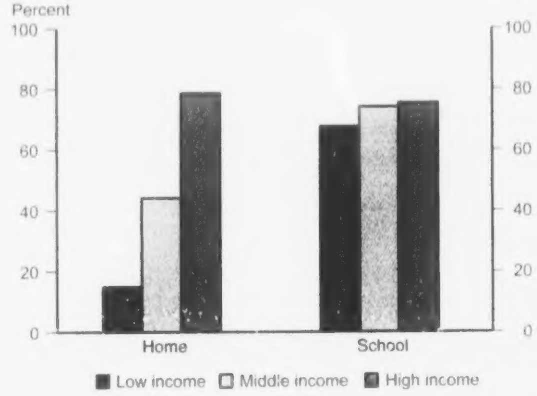
Figure II.2. Percentage of public schools and instructional classrooms with Internet access: 1994–98



SOURCE: Indicator 17, Condition 1999.

Computer technology is expensive, and financial resources create barriers to access. In 1997, student use of computers at home and school generally increased with family income. Low- and middle-income students were much more likely to use a computer at school than at home.

Figure II.3. Percentage of students in grades 7–12 who used a computer at home and at school, by family income: 1997



SOURCE: Indicator 18, Condition 1999.

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Teacher Preparedness

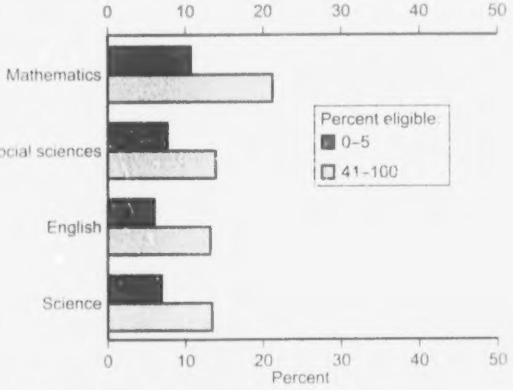
As new instructional practices and technologies make their way into the classroom, they are requiring fundamental changes in how teachers work and prepare themselves to teach. Helping teachers to meet these new demands has become a major focus of school reform efforts.

- *Some students are being taught core academic subjects by teachers who are not certified to teach those subjects, but certification requirements are increasing.*

Increasingly, teachers are being required to have a thorough grounding in the subjects they teach so that they can guide their students effectively through the material and respond knowledgeably to questions and comments. In 1993–94, 9 to 14 percent of students in public secondary schools (schools with grade 7 or higher) were taught a core subject by a teacher who was not certified in the subject taught (mathematics, 14 percent; social sciences, 11 percent; English, 10 percent; and science, 9 percent; *Indicator 58,* Condition 1998).

Equity is a concern. Students at public secondary schools with a high level of poverty (more than 40 percent of students eligible for free or reduced-price lunch) were more likely than their counterparts at schools with a low level of poverty (5 percent or less eligible for free or reduced-price lunch) to be taught one of the core subjects by a teacher who had not majored or minored in the subject.

Figure II.4. Percentage of public secondary students who were taught core subjects by teachers not certified in the subject, by percentage of students eligible for free or reduced-price lunch: 1993–94



SOURCE: Table 58-1, Condition 1998

In 1993–94, 83 percent of public school districts required full standard state certification in the field to be taught, and 67 percent required a college major or minor in that field (about the same percentages as in 1990–91; *Indicator 22*). There was, however, an increase between 1990–91 and 1993–94 in the percentage of districts requiring applicants to pass a state test of basic skills (from 42 to 49 percent) or a state test of subject knowledge (from 34 to 39 percent).

- *Many teachers do not consider themselves very well prepared to handle some of the new demands being placed on them, but they are more likely to feel prepared after they have participated in related professional development activities.*

According to teachers' own assessments in 1998, only some feel very well prepared to meet certain instructional requirements, including implementing new teaching methods (41 percent), implementing state or district curriculum and performance standards (36 percent), or using student performance assessment techniques (28 percent). Even fewer feel well prepared to integrate educational technology into their teaching methods (20 percent), to address the needs of students with disabilities (21 percent), or to address the needs of students with limited English proficiency or from diverse cultural backgrounds (20 percent; *Indicator 23*).

Table II.1. Percentage of teachers who felt very well prepared in various areas, by hours spent in professional development in that area in the past 12 months: 1998

	Hours of professional development		
Activity	0	0–8	More than 8
Implement new teaching methods	34	38	51
Implement state or district curriculum and performance standards	30	33	44
Use student performance assessment techniques	20	27	45
Address needs of students with disabilities*	17	20	41
Integrate educational technology	11	17	33
Address needs of LEP students or students from diverse cultural backgrounds*	14	21	41

*Percentages based on teachers who teach such students.

SOURCE: Indicator 23, Condition 1999

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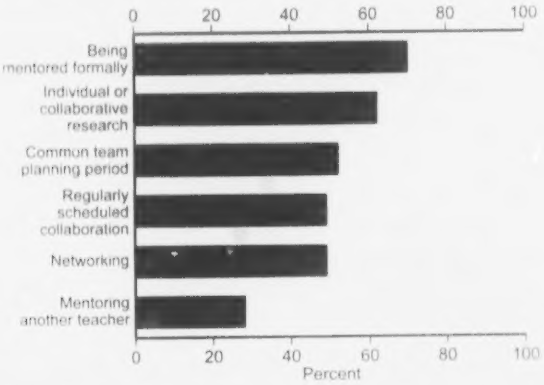
How well prepared teachers believe they are to meet some of these new demands is associated with their participation in related professional development activities. In 1998, teachers who had participated in 8 hours or more of professional development in selected areas in the previous 12 months were more likely than other teachers to consider themselves very well prepared in those areas.

- *Teachers report that regular participation in collaborative activities improves their teaching.*

Recent conceptions of high-quality professional development have included emphasis on regular collaborative activities among teachers as a way of improving their teaching practice. In 1998, many of the teachers who participated in certain collaborative activities involving teachers in their school or in the larger teaching community at least once a week believed that those activities improved their teaching a lot (*Indicator 24*). In contrast, teachers who participated once a month or less were generally less likely to hold this belief.

Figure II.5. Percentage of public school teachers who had participated in various activities in the past 12 months at least once a week who believed it improved their teaching a lot: 1998



SOURCE: Indicator 24, Condition 1999

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III. Quality of Educational Environments (Postsecondary)

The quality of undergraduate education has received considerable attention in recent years, with concerns raised about the quality of curriculum, faculty, and teaching methods. National data on these topics are limited, but data are available to describe several important issues: the amount of remedial education being provided at the postsecondary level, the amount of exposure students have to senior faculty, the use of part-time and nontenure-track faculty, and the amount of time that faculty devote to teaching.

- *The majority of postsecondary education institutions offer remedial courses.*

The role of remedial education at the postsecondary level has been controversial, with some arguing that remedial education helps expand opportunities for unprepared students, and others arguing that precollege-level courses do not belong in the curriculum of postsecondary education institutions. In fall 1995, about three-quarters (78 percent) of all higher education institutions (including public and private, 2- and 4-year institutions) offered remedial courses in reading, writing, or mathematics, about the same percentage as in 1989 (74 percent; *Indicator 29*). Also in fall 1995, 29 percent of all freshmen enrolled in at least one of these courses, again about the same percentage as in 1989 (30 percent).

- *Exposure to senior faculty was about the same across all types of 4-year colleges and universities in 1992, and did not change appreciably between fall 1987 and fall 1992.*

Because senior faculty (full and associate professors) have the most experience, some believe that exposure to such faculty enhances the quality of undergraduates' education. In fall 1992, exposure to senior faculty was about the same at each type of 4-year institution—research, doctoral, comprehensive, and liberal arts (*Indicator 50*, Condition 1996).

In fall 1987, both upper- and lower-division undergraduates at 4-year colleges and universities spent about 31 percent of their classroom hours with full professors and another 26 percent with associate professors. These percentages did not change significantly between 1987 and 1992.

Table III.1. Percentage of classroom hours 4-year college and university students were exposed to senior faculty: Fall 1987 and fall 1992

Level	Fall 1987 Full professor	Fall 1987 Associate professor	Fall 1992 Full professor	Fall 1992 Associate professor
Lower division	30.4	26.3	27.8	23.6
Upper division	31.1	25.5	33.5	25.8

SOURCE: Indicator 50, Condition 1996.

- *A majority of instructional faculty and staff at 2-year institutions are part time.*

Part-time instructional faculty provide postsecondary institutions with a flexible work force, but these faculty members face job uncertainty, often play no role in academic governance, and typically lack job benefits provided to full-time faculty. Many are concerned that the use of part-time faculty can affect faculty morale and the quality of teaching at postsecondary institutions. In fall 1992, 42 percent of all postsecondary instructional faculty and staff teaching classes were part time (*Indicator 33*). Part-time faculty were much more common at 2-year institutions (60 percent) than at the various types of 4-year institutions: research (23 percent), doctoral (33 percent), comprehensive (39 percent), or liberal arts (36 percent). Part-time instructional faculty and staff teaching undergraduate courses for credit taught, on average, 1.8 courses in fall 1992.

- *Full-time faculty are spending proportionately less time on teaching-related activities but more hours in the classroom.*

In addition to teaching, faculty have responsibilities for research, administration, and service. In recent years, there has been concern that an insufficient proportion of faculty time is being devoted to teaching. In fall 1992, full-time faculty spent, on average, 54 percent of their time in the classroom and in teaching-related activities such as grading papers, preparing for class, developing new curricula, advising or supervising students, and working with student organizations or intramural athletics (*Indicator 34*). This represents a slight decline from fall 1987, when full-time faculty spent 57 percent of their time on teaching-related activities.

Despite this overall decrease in the proportion of time devoted to teaching-related activities, the average amount of time that full-time faculty spent in the classroom increased from 9.8 to 11.0 hours per week between 1987 and 1992. This increase in hours spent in the classroom, but decrease in the proportion of time spent in teaching related-activities, could mean either that faculty are spending proportionately less time on nonclassroom teaching-related activities or that the total amount of time they work has increased.

IV. Social Support for Learning

The support that families and society at large provide for learning significantly affects the quality of educational opportunities available to children and postsecondary students and, thus, contributes to their ultimate success. Investments of both time and financial resources are important.

Family Support

Parents are their children's first teachers. Even when children are very young, parents can assume a key role in preparing them for formal schooling by helping them to develop language and other skills and by enrolling them in early childhood programs. Once children enter school, their parents can continue to support learning by participating in school activities and helping with homework.

- *Many parents report that their young children are engaging in early literacy activities.*

In 1996, 83 percent of children ages 3–5 were read to three or more times a week by a parent or other family member and 82 percent were told a story at least once a week (*Indicator 35*). In addition, 38 percent visited a library at least once a month.

Table IV.1. Percentage of children ages 3–5 who participated in various reading activities with a parent or family member: 1996

Parents' highest education	Read to 3 or more times in last week	Told story at least once in last week	Visited library in past month
Total	**82.9**	**82.0**	**38.2**
Parents' highest education			
Less than high school	58.8	72.8	19.4
High school	77.4	79.9	30.1
Some college	86.5	84.6	37.1
Bachelor's degree	90.9	83.2	51.9
Graduate/ professional degree	96.1	85.8	59.5

SOURCE: Indicator 34, Condition 1999.

Participation was related to parents' education: Children whose parents had gone to college were more likely to be read to three or more times a week or to visit a library at least once a month than were children whose parents had not attended college.

Parental education levels are increasing. For example, in 1997, 21 percent of children ages 6–12 had mothers with at least a bachelor's degree, compared with 15 percent in 1987 and 10 percent in 1977 (*Indicator 37*). This trend may, in turn, be leading to increased participation of young children in early literacy activities.

- *Many children are enrolled in early childhood programs.*

In 1996, 43 percent of 3-year-olds, 64 percent of 4-year-olds, and 92 percent of 5-year-olds were enrolled in center-based programs or kindergarten (*Indicator 45*). These rates have remained relatively stable since 1991, when they were 43, 62, and 90 percent, respectively.

- *Most parents report attending meetings and events at their children's schools and helping with homework.*

In 1996, 84 percent of students had parents who attended a scheduled meeting with a teacher and 88 percent had parents who attended a general school meeting (*Indicator 49*, Condition 1998). About two-thirds (66 percent) had parents who attended a school event and 40 percent had parents who volunteered at school or served on a committee. According to reports from parents, about three-quarters of students in grades 1–12 received help with their homework from their parents at least once a week—35 percent received help once or twice a week and 38 percent received help more often than that.

- *Fathers' participation has a positive effect on children's success in school.*

The role fathers assume in their children's education has become a focus of interest as the numbers of single and nonresident fathers have increased, greater numbers of mothers have entered the labor force, and societal expectations about fathers' roles in raising children have evolved.

In 1996, 46 percent of single fathers, 27 percent of fathers in two-parent families, and 9 percent of nonresident fathers had a high level of involvement in their children's schools (*Indicator 36*). This meant that they participated in at least three of the following four activities during the school year: volunteered, attended a class event, attended a parent–teacher conference, or attended a general school meeting.

In 1996, children whose fathers had high levels of involvement in their schools were more likely than those whose fathers had low levels of involvement to enjoy school and were less likely to be suspended or expelled, regardless of family structure.

Table IV.2. Percentage of students in grades K–12 with selected school outcomes: 1996

Family type and fathers' involvement	Child enjoys school	Child ever suspended/expelled (Grades 6–12)
Fathers in two-parent families		
Low involvement	33.0	17.7
High involvement	49.8	9.8
Fathers in single-parent families		
Low involvement	29.8	34.5
High involvement	43.9	11.4
Nonresident fathers		
Low involvement	34.7	27.8
High involvement	44.8	14.4

SOURCE: Indicator 35, Condition 1999.

In addition to participating directly in school- and learning-related activities with their children, parents and other family members sometimes support their children's education financially through tuition payments.

- *The proportion of students enrolled in private education varies greatly across the preschool, elementary/secondary, and postsecondary levels.*

Although some early childhood programs are publicly funded, 50 percent of all students enrolled in preschool programs in 1997 attended private schools, down from 63 percent in 1979 (*Indicator 28*). This decline has occurred as increasing numbers of public schools have begun to offer such programs. The median annual tuition for private preschool programs was about $1,400 in 1997 (in constant 1998 dollars).

For the most part, elementary and secondary education is publicly provided, but, for a variety of reasons, some families choose to send their children to private schools. In 1997, 9 percent of elementary school students and 7 percent of secondary school students attended private schools. This represents a slight decline since 1979 at the elementary level (down from 11 percent). The percentage of secondary students enrolled in private schools has remained relatively stable at about 7 percent since

1979. The median annual tuition in 1997 was $2,100 (in constant 1998 dollars) at the elementary level and $4,200 at the secondary level.

At the postsecondary level, 25 percent of all undergraduates (and 33 percent of those at 4-year colleges and universities) attended private institutions in 1995–96.[21] Average tuition charges for full-time, full-year undergraduates were $12,600 at private, not-for-profit 4-year institutions and $3,800 at public institutions.[22]

Public Financial Support

There are a number of ways to assess public support for education. One way, for example, is to compare per-student expenditures (adjusted for inflation) over time. Another is to examine the amount of funds raised per student for education relative to per capita income over time. Yet another is to compare the United States with other countries in terms of the share of national resources devoted to education.

- *Per pupil expenditures for elementary/secondary education have increased slightly in recent years.*

In constant 1998 dollars, public expenditures per pupil increased from about $6,700 to about $6,900 between the 1989–90 and 1995–96 school years (*Indicator 39*).

The amount expended per pupil has varied with district wealth. For example, in districts with a median household income of $35,000 or more, public school expenditures per pupil were about $7,500 (in constant 1998 dollars) in the 1994–95 school year, compared with about $6,000 in districts with a median household income of less than $20,000.

- *At the higher education level, total per student expenditures are increasing, but not government appropriations.*

In the 1995–96 academic year, total expenditures per full-time-equivalent (FTE) student ranged from about $6,700 at public 2-year institutions to about $37,200 at private, not-for-profit universities (*Indicator 41*). In constant 1995–96 dollars, total expenditures per FTE student increased at all types of higher education institutions between 1990 and 1996.

Federal, state, and local government appropriations are the primary sources of revenue for public institutions. During the first six years of the 1990s, however, government appropriations per FTE student declined in constant 1995–96 dollars, whereas tuition and fees per FTE student increased (*Indicator 40*). Tuition and fees per FTE student increased at private, not-for-profit institutions as well.

Table IV.3. Expenditures, government appropriations, and tuition revenues per FTE student (in constant 1995–96 dollars): 1990 and 1996

Academic year ending	Total expenditures	Government appropriations*	Tuition revenue
		Public universities	
1990	$17,900	$8,700	$3,700
1996	19,700	8,000	4,800
		Private universities	
1990	32,000	600	13,600
1996	37,200	400	16,300
		Public, 4-year colleges	
1990	12,400	7,400	2,400
1996	13,400	6,500	3,300
		Private, 4-year colleges	
1990	15,200	200	9,700
1996	17,200	100	11,300
		Public, 2-year colleges	
1990	6,200	4,300	1,200
1996	6,700	4,200	1,600

* Excludes student financial aid.

SOURCE: Indicators 39 and 40, Condition 1999.

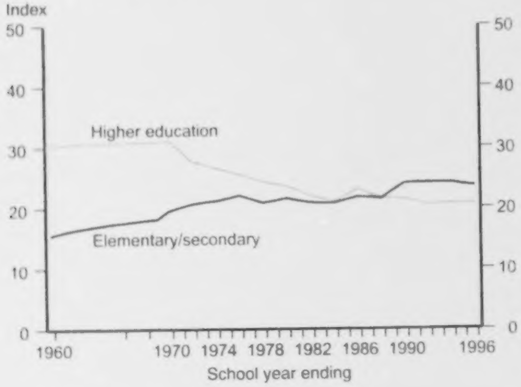
- *Financial aid to students helps to offset the cost of postsecondary education.*

In 1997–98, financial aid to students from federal, state, and institutional sources reached $60 billion.[23] This represents an increase of approximately 80 percent in constant dollars over the past decade. Most of the increase, however, is due to increases in loans. Sixty percent of all aid to students was in the form of loans in 1998, compared with about 45 percent 10 years earlier.

- *According to one measure of effort, public financial support has generally increased over time for elementary and secondary education and has remained stable since the early 1980s for higher education.*

Examining changes in per student expenditures in light of changes in per capita income provides an additional perspective on public financial support for education. The national index of public effort for elementary and secondary education (revenues per student divided by per capita income for the total population) in 1996 was 23.5 (*Indicator 38*). Although this index has generally increased over time, it decreased slightly between 1994 and 1996. The national index for higher education (20.6 in 1996) has been relatively stable since the early 1980s,

Figure IV.1. National index of public effort to fund education: 1960–1996



SOURCE: Indicator 37, Condition 1999.

but in 1996 was 10.5 points below the high of 31.1 in 1970.

- *The United States devotes more of its public resources to education than most G-7 countries.*

Public expenditures for elementary / secondary education in the United States amounted to 3.5 percent of the gross domestic product (GDP) in 1995; for higher education, they amounted to 1.1 percent (*Indicator* 42). Of the G-7 countries (Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States), only Canada spent a larger fraction of its GDP than the United States on both elementary / secondary education (4.0 percent) and higher education (2.0 percent). France spent a larger percentage than the United States on elementary / secondary education (4.1 percent).

V. Educational Participation and Progress

Students' participation in and rates of progress through the educational system and their educational attainments are important aspects of the condition of education. The extent of participation in education is described here as movement through various states of enrollment in the formal education system. This sequence includes the rates at which students enroll in different levels of the education system, the transitions those students make from one level to the next and when those transitions are made, the persistence of students toward completing degrees or other credentials, and students' eventual educational attainments. Comparison of the eventual attainments resulting from these participations and transitions through the educational system over time—along with information about the nature and quality of education received during these participations—enables analysis of the extent to which progress is being made in providing all students with a quality education.

Enrollment Growth

- *Total enrollments in both elementary and secondary education have increased since the early 1980s to all-time highs.*

In the aftermath of baby boom generation enrollment, total enrollments declined during the 1970s through the early 1980s. After decreasing to 45 million in 1984, enrollment began to rise again as the children of baby boom parents began to enter the education system in large numbers (*Indicator* 45). Prekindergarten through 12th-grade enrollment in public and private schools reached an all-time high of 53 million students in 1998. Compared with 1988, this represents an increase of 18 percent at the public elementary level (PreK–8) and 14 percent at the secondary level (grades 9–12). Between 1998 and 2008, public secondary school enrollments are projected to increase by another 11 percent, whereas enrollments at the elementary level are projected to remain about the same.

In higher education, the total number of students enrolled in public and private 2- and 4-year institutions rose from 9.2 million in 1972 to 14.3 million in 1996, with a small decline in the mid-1980s (*Indicator 48*). These enrollment increases were driven by both demographic shifts and increased rates of college enrollment.

Table V.1. Total elementary and secondary enrollment (in thousands): 1988–98

	Public schools		Private schools	
Year/period	Grades PreK–8	Grades 9–12	Grades PreK–8	Grades 9–12
1988	28,501	11,687	4,036	1,206
1998	33,522	13,270	4,588	1,339
Percentage change				
1988–98	17.6	13.5	13.7	11.0

SOURCE: Indicator 45, Condition 1999.

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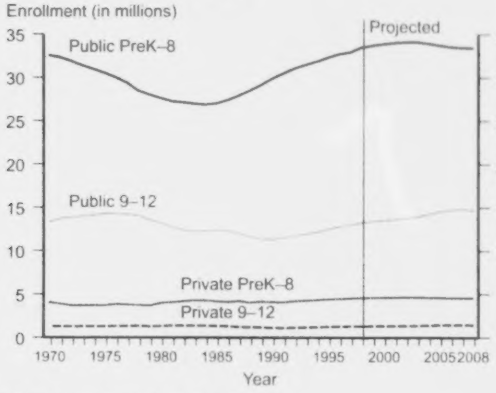
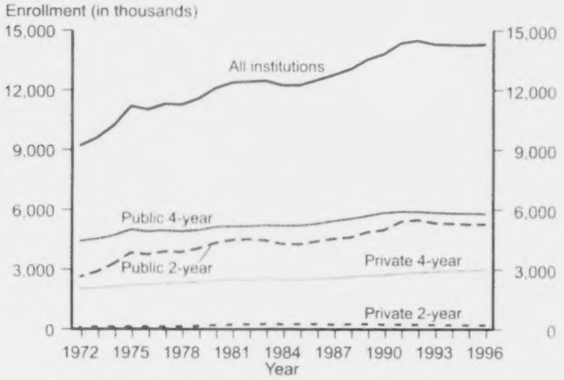
Figure V.1a. Elementary and secondary school enrollment: Fall 1970–2008



SOURCE: Indicator 45, Condition 1999.

Figure V.1b. Total enrollment in higher education: Fall 1972–96



SOURCE: Indicator 46, Condition 1999.

Within this overall expansion, public 2-year colleges increased their share of total enrollment from 29 percent in 1972 to 37 percent in 1996, whereas the share of public 4-year institutions decreased from 48 percent in 1972 to 41 percent in 1996. Private 4-year colleges and universities had about the same share of higher education enrollments in 1996 and in 1972 (about 20 percent; *Indicator 48*).

Another perspective from which to examine participation in education is to focus on rates of enrollment by age. Such an analysis factors out changes due to demographic shifts in the population to show the extent to which individuals are enrolled in formal education at different points in their lives.

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- *Since 1970, the largest increase in educational enrollment rates has been among those ages 3–5.*

Between 1970 and 1997, the largest increase in enrollment rates was among 3- to 5-year-olds: their enrollment rates increased by 26 percentage points. The preponderance of this increase was in preprimary and kindergarten programs, where the enrollment rates increased by 27 percent, whereas enrollment decreased by 1 percent at the elementary and secondary levels (grades 1–12).[24]

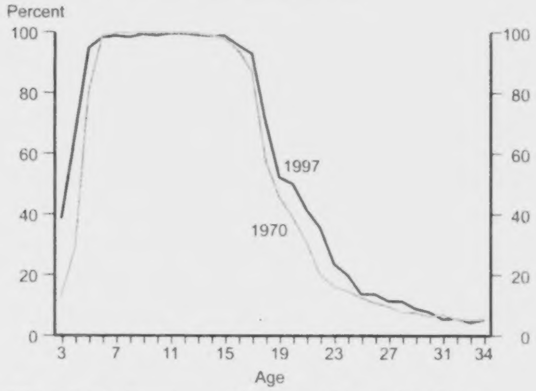
At the elementary and secondary level, the largest increase in enrollment rates was among 17- to 18-year-olds, who were 10 percentage points more likely to be enrolled in 1997 than they were in 1970. Among 6- to 16-year-olds, which in most states includes the years of compulsory education,[25] the enrollment rate decreased by about 1 percentage point. Among both 16- and 19-year-olds, the enrollment rate increased by about 2 percentage points. For most students, the transition between elementary and secondary education and postsecondary education occurs between the ages of 17 and 19.

- *Since 1970, the largest increase in postsecondary education enrollment rates has been among traditionally aged college students (19- to 24-year-olds) rather than among older individuals.*

At the postsecondary level, the rates of enrollment in postsecondary education increased by 10 percentage points among those ages 19–20, by 15 percentage points among those ages 21–22, and by 8 percentage points among those ages 23–24. For those over age 24, postsecondary enrollment rates increased by 4 percentage points between ages 25–29 and by 2 percentage points between ages 30–34. For those over age 34, the percentage point increases at each age were negligible. In other words, the largest increases in postsecondary enrollment rates since 1970 occurred within the traditional college-going age group who are 19–24, rather than among those ages 25–29, 30–34, or older. The change in the postsecondary enrollment rates of those ages 17–18 was statistically insignificant.[26]

These increases in postsecondary enrollment may be due to several causes. One such cause is the increase in parents' education. The percentage of 15- to 18-year-olds whose mothers were college graduates nearly tripled from 7 percent in 1972 to 19 percent in 1997, and the corresponding increase for fathers was from 15 to 26 percent (*Indicator 44*, Condition 1998). Among 1992 high school graduates, 71 percent whose parents were college graduates attended a 4-year institution by 1994. On the other

Figure V.2. Percentage of the population enrolled in school, by age: October 1970 and 1997



SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

hand, 26 percent of those whose parents were high school graduates or had less education attended.[27] Also, once enrolled, postsecondary students whose parents' highest educational level was a bachelor's degree or more were more likely to complete a bachelor's degree than those with a high school diploma or less (*Indicator 56*). As discussed below, a contemporaneous factor is the economic demand for college-educated people. When the demand for young college graduates is high, enrollments (and completions) tend to rise, and when demand is low, they tend to fall.

When the definition of learning is expanded to include non-formal education and training in a broader range of settings than schools, the extent of learning among adults between the ages of 25 and 44 is more widespread. These other settings can include company-sponsored education or training in the workplace, library and museum programs, or even use of the media. In 1995–96, 51 percent of individuals between the ages of 25 and 44 reported that they engaged in one or more learning activities in the previous year. Some of this learning occurred in settings other than a postsecondary institution: 27 percent of individuals obtained all of their learning from non-postsecondary institutions, 14 percent only from postsecondary institutions, and 10 percent from both.[28]

High School Dropouts and Completions

- *The high school completion rate of 25- to 29-year-olds has risen overall since 1971, with most of the gains occurring in the 1970s through the early 1980s.*

Table V.2. Percentage distribution of 1992 high school graduates according to postsecondary enrollment by 1994 and type of institution attended

Parents' highest education level and race–ethnicity	Attended a postsecondary institution		No postsecondary education*
	4-year	Any type*	
Total	**45.1**	**75.2**	**24.8**
Parents' highest education level			
High school completion or less	25.8	58.9	41.0
Some college	41.0	74.7	25.3
College completion	71.4	92.5	7.5
Race–ethnicity			
White	47.1	75.9	24.1
Black	42.4	71.3	28.7
Hispanic	30.5	70.5	29.4
Asian/Pacific Islander	54.2	86.2	13.8

* Details may not add to totals due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Access to Postsecondary Education for the 1992 High School Graduates*, NCES 98-105, Washington, DC: 1997.

As shown in the Learning Outcomes section, those who complete high school are more likely to be employed as young adults than noncompleters. Furthermore, the differences in employment rates and earnings between these two groups have been growing over the last two decades. These recent trends confirm the long-standing belief of parents and educators that completing high school is important.

Whether students have responded to the urgings of their elders or have seen the growing consequences of noncompletion for themselves, the rate of high school completion (that is, the receipt of a diploma or a GED) has risen over the past 25 years among 25- to 29-year-olds from 78 percent in 1971 to 88 percent in 1998 (*Indicator 59*).

The increase in the high school completion rate was greater for blacks than for whites over the entire period between 1971 to 1998, narrowing the gap between black and white rates of high school completion that initially existed. In 1971, the rate of high school completion for blacks was 23 percentage points less than the rate for whites, and it was 5 percentage points less in 1998. This decrease in the gap represents significant educational progress for blacks.

Eighty percent of the decrease in this gap occurred between 1971 and 1988, which corresponds with the time period in which the performance of blacks on the NAEP trend tests increased relative to whites. The gap in high school graduation rates declined from 23 to 9 percentage points between 1971 and

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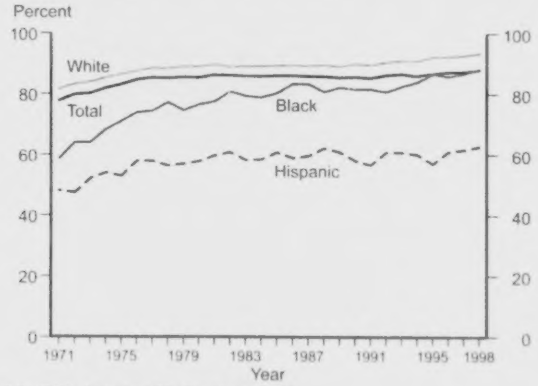
Figure V.3. Percentage of 25- to 29-year-olds who completed high school: March 1971–98



SOURCE: Indicator 59, Condition 1999.

1988, and from 9 to 5 percentage points between 1988 and 1998.

The reasons for this improvement may be twofold. One might be the fact that the achievement of black students increased, which was discussed previously in the essay; a second might be the increased educational levels of the parents of black students (*Indicator 44*, Condition 1998).

In contrast to the closing of the black–white gap in high school completion rates, the Hispanic–white completion gap for 25- to 29-year-olds was about the same in 1998 as it was in 1971 (*Indicator 59*). Although the Hispanic high school completion rate increased during this period, it did so at a rate that was no faster than that for whites. In 1998, the Hispanic completion rate (63 percent) remained 31 percentage points lower than the rate for whites.

One possible explanation of why the Hispanic high school completion rate has not risen any faster is the continuing influx of immigrants among this population. Among Hispanics born outside of the United States, 50 percent of 25- to 34-year-olds were not enrolled in school and had not completed high school in 1997, compared with 10 percent of their non-Hispanic counterparts. Among second- or later-generation Hispanics ages 25–34, the noncompletion rate was 24 percent, compared with 8 percent of their non-Hispanic peers (*Indicator 52*).

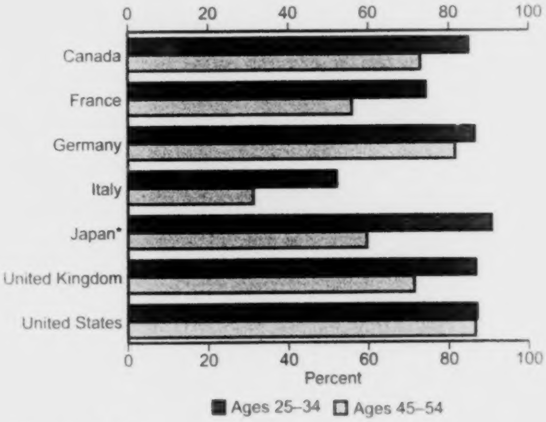
Although these aggregate rates of high school completion by racial–ethnic groups tell an important story about minority progress in education, they do not tell the whole story. That is, they do not account for the effects of other important variables that are also related to dropout rates, such as parental education and family income. For example, while the status dropout rate[29] among all blacks ages 16–24 was 13 percent in 1996, the dropout rates among low-, middle-, and high-income blacks were 22 percent, 9 percent, and 3 percent, respectively.[30] In comparison, the overall dropout rate for white 16- to 24-year-olds was 14 percent, and the dropout rates for the corresponding income groups were 14, 8, and 2 percent, respectively. Therefore, the dropout rates for the middle- and high-income groups of blacks and whites are comparable, and most of the difference in the overall rate between blacks and whites is due to the higher dropout rate of low-income blacks. In general, high school dropout rates differ not only by race–ethnicity but also by gender, family income, and parental education.

International Comparisons

- *Secondary school completion rates are rising in other large, industrialized countries such that other countries are essentially catching up to the rates of the United States.*

In recent years, other large, industrialized countries have invested heavily in the expansion of secondary schooling. As a result, the percentage of younger individuals in these countries who have completed secondary education has risen. In 1996, at least 80 percent of adults ages 25–34 completed secondary education in four large, industrialized countries in addition to the United States: the United Kingdom, Canada, Germany, and Japan (*Indicator 60*). In con-

Figure V.4. Percentage of the population in large, industrialized countries who completed secondary education: 1996



* Data are for 1989.
SOURCE: Indicator 60, Condition 1999.

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trast, the percentage of the population ages 45–54 who completed secondary education was at least 80 percent only in Germany and the United States.

However, these increases in the level of secondary school completion in other countries present a new challenge to the United States. They mean that the United States may be losing the economic and civic advantages the nation has benefited from compared with other countries as a result of having achieved nearly "universal" education at the secondary level earlier than other countries.

The loss of these advantages, which the nation has enjoyed for generations, combined with the evidence from TIMSS about the lower achievement of U.S. high school students in mathematics and science, reinforces the need for major improvements in the quality of secondary schooling. Merely having the largest percentage of students who complete secondary education will not suffice to the same extent as in the past. In the future, what will matter more is how much students have learned when they complete secondary education.

At the higher education level, the United States still retains its historic lead in terms of college completion. In 1996, 27 percent of the U.S. population ages 25–34 completed 4 years of college or more. Japan had the next highest rate, with 23 percent of its population finishing college. In Japan, individuals ages 25–34 were more than twice as likely to have completed higher education as those ages 45–54. This reflects a major expansion of Japan's higher education system in recent years. In the United States, the percentage of 45- to 54-year-olds who have completed higher education is higher than the percentage of 25- to 34-year-olds.

Transition to College

- *The percentage of high school completers who enroll in college immediately after completing high school has risen since 1981, but not by as much for blacks and Hispanics as for whites.*

After completing high school, the next educational transition for students is often entering college. Youth decide to enter college depending upon their life goals and the environment of expectations and opportunities in which they have grown up.

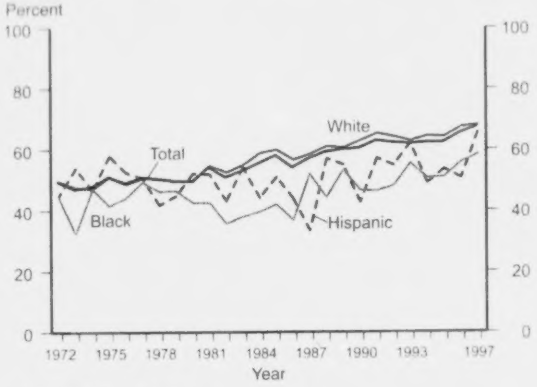
Some students enter college "immediately" after graduating from high school, whereas others wait or defer the decision. "Immediate" enrollment is defined as enrolling by the October following the completion of high school. For GED recipients, this event could occur in their 20s or later. The timing of this transition is important because delaying entry is associated with a reduced chance of a student completing a baccalaureate degree.[31]

One of the most dramatic changes that has occurred in education since the early 1980s has been the large increase in the percentage of students aspiring to graduate from college. In 1992, 69 percent of high school seniors said that they hoped to complete 4 or more years of college, compared with 46 percent of seniors in 1981.[32]

Reflecting these increased aspirations, the percentage of students who actually enrolled in college immediately after completing high school increased as well. The percentage of high school completers ages 16–24 who enrolled in college immediately after finishing high school remained at about 50 percent between 1972 and 1980 but then gradually rose between 1980 and 1997 *(Indicator 53)*. By 1997, 67 percent of high school completers made an immediate transition to college. The beginning of this trend corresponds with both the rising educational expectations of the education reform movement following publication of *A Nation at Risk* and the increase in the college wage premium, as discussed in the Learning Outcomes section.

The gaps between whites and blacks and between whites and Hispanics in their rates of enrolling in college immediately after graduating from high school have increased overall since 1972. Between 1972 and 1980, the gaps remained the same; the rates of increase in the black, white, and Hispanics rates

Figure V.5. Percentage of high school completers ages 16–24 who were enrolled in college the October after completing high school: October 1972–97



SOURCE: Indicator 53, Condition 1999

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of immediate transition were not statistically different from each other. Between 1980 and 1986, the gaps increased because the white rate of transition increased at a faster rate than the black and Hispanic rates. Since 1986, the gaps have remained the same because the black, white, and Hispanic rates of transition have increased at statistically similar rates. Thus, overall, the gaps in the rates of transition between whites and blacks and between whites and Hispanics have increased from 1972 to 1997, primarily because of the increased gaps from 1980 to 1986. In 1996, the gaps between whites and blacks and between whites and Hispanics were 12 percent and 11 percent, respectively (*Indicator 53*).

Notably, the black rate of enrolling in college immediately after graduating from high school did not increase discernibly between the early 1970s and mid- to late 1980s when black NAEP achievement test scores rose relative to those of whites. As shown in figure V.5, the black rate of immediate transition to college remained at about the same level in the early to mid-1980s as it was during the 1970s.

Similar trends have occurred in the percentages of high school completers ages 18–24 who are enrolled in college. Between 1972 and the late 1970s, the rates of college enrollment among 18- to 24-year-olds were about the same for whites and blacks (*Indicator 54*). Since the early 1980s, the rate for whites has increased faster than the rates for blacks and Hispanics: by 1997, the white rate was about 7 percentage points higher than the black rate and 11 percentage points higher than the Hispanic rate.

Although the rate of college enrollment varies by race–ethnicity, it also varies by family income. In 1997, 82 percent of high school completers ages 16–24 from families in the top 20 percent of the income distribution enrolled in college immediately after graduating from high school, compared with 57 percent of students in the bottom 20 percent, a difference of 25 percentage points (*Indicator 53*).[33] Also, 61 percent of students from families with an annual income of $60,000 or more who began college in 1989–90 seeking a bachelor's degree had done so by spring 1994, compared with 37 percent of students from families with an annual income of less than $20,000 (*Indicator 12,* Condition 1998).

- *Students from different racial–ethnic and family income backgrounds who are academically well-prepared for college and who take the steps necessary to enroll are accepted and subsequently enroll at about the same rates.*

The meritocratic ideal in education is that students who study hard in high school, take college preparatory courses, and do well will be admitted to college no matter what their racial–ethnic or family background and that they will most likely succeed in college. The tie between this merit-based "performance standard" and college entrance has historically given colleges considerable influence over the educational purposes and content of the high school curriculum.[34]

In fact, students from different racial–ethnic and economic backgrounds who take the steps necessary to be well-prepared for college enroll at high rates. Data from the National Education Longitudinal Study (NELS) show that among 1992 high school graduates, about two-thirds of whites and one-half of blacks and Hispanics were "college qualified." Of those who were qualified for enrollment in a 4-year institution, 89 percent of whites, 82 percent of blacks, 82 percent of Hispanics, and 92 percent of Asian/Pacific Islanders actually attended some postsecondary institution by 1994. Students were considered to be college qualified based on their high school grade-point average, senior class rank, aptitude test scores, SAT or ACT test scores, and the rigor of courses they took in high school.

Among those who were qualified *and took the steps necessary to apply to a 4-year institution* (that is, took a college entrance examination and applied for admission), 94 percent of whites, 90 percent of blacks, 91 percent of Hispanics, and 94 percent of Asian/Pacific Islanders were accepted at a 4-year institution (*Indicator 8,* Condition 1998). By 1994, about 84 percent of these college-qualified students actually enrolled at a 4-year institution (84 percent of whites, 82 percent of blacks, 77 percent of Hispanics, and 84 percent of Asian/Pacific Islanders). Among these students, those from low-income families were less likely to attend than those from high-income families (82 percent versus 92 percent), but they attended at the same rate as those from middle-income families[35] (*Indicator 8* and "College Access and Affordability," Condition 1998).

Another analysis of the same 1992 senior cohort examined how scores on high school achievement tests affected the probability of entering a postsecondary institution by 1994 relative to the student's socioeconomic status (SES). Among 1992 high school seniors in the top quarter of student achievement, 97 percent of those in the highest SES quarter and 78 percent of those in the lowest quarter enrolled in a postsecondary institution by 1994

Table V.3. Percentage of 1992 high school graduates who were college qualified and percentage who attended a postsecondary institution by 1994

Race-ethnicity and family income	Qualified for 4-year college	Attended a postseconday institution: 4-year: Qualified	Attended a postseconday institution: 4-year: Marginally or not qualified	Attended a postseconday institution: Any type: Qualified	Attended a postseconday institution: Any type: Marginally or not qualified
Total	**65**	**62**	**15**	**88**	**52**
Race-ethnicity					
White	68	63	14	89	49
Black	47	64	23	82	60
Hispanic	53	49	12	82	58
Asian/Pacific Islander	73	68	13	92	69
Family income					
Less than $25,000	53	52	11	78	47
$25,000–74,999	68	62	17	90	57
$75,000 or more	86	83	33	96	70

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Access to Postsecondary Education for the 1992 High School Graduates*, NCES 98-105, Washington, DC: 1997.

(*Indicator* 9, Condition 1997). Among those in the bottom quarter of student achievement, 77 percent of those in the highest SES quarter and 36 percent of those in the lowest quarter enrolled. This suggests that high student achievement may partially offset the deleterious effects of low SES on postsecondary enrollment.

Table V.4. Percentage of students who attended a postsecondary institution within 2 years following scheduled high school graduation: 1994

Achievement test quartile	Socioeconomic status: Low quartile	Socioeconomic status: Middle quartile	Socioeconomic status: High quartile
First (low)	35.9	49.4	77.3
Second	50.2	66.2	85.3
Third	62.5	78.7	90.3
Fourth (high)	77.6	89.3	96.7

SOURCE: Indicator 9, Condition 1997.

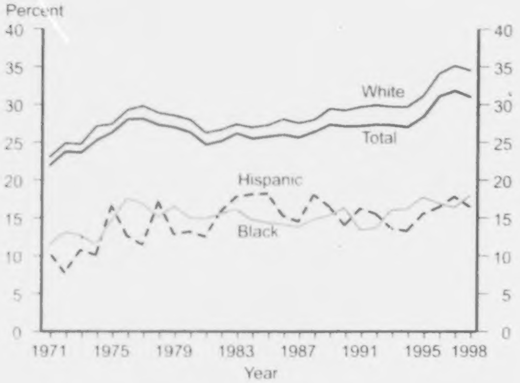
College Completion

- *The percentage of the population ages 25–29 who have completed a bachelor's degree has generally increased since the early 1970s; however, since the early 1980s, the completion rate for whites has been rising faster than the rates for blacks and Hispanics.*

After high school completion, a subsequent benchmark for gauging students' progress through the education system is the attainment of a bachelor's degree. Attainment of this degree represents a distinctly higher level of education than the completion of high school and opens doors to careers that are closed to those with less education. As discussed in the Learning Outcomes section, the demand for bachelor's degree recipients has grown since 1980 as the economy has changed.

In light of this demand, guidance counselors, teachers, and parents have increasingly encouraged high school students to set their sights on obtaining a bachelor's degree. The proportion of students who reported that their teachers and guidance counselors advised them to attend college doubled between 1980 and 1990.[36] Since, 1971, the proportion of high school completers who have earned a bachelor's degree or more has generally risen. Among high school completers ages 25–29, the rate of attainment rose from 22 percent in 1971 to 31 percent in 1998 (*Indicator 59*).

Figure V.6. Percentage of 25- to 29-year-old high school completers who completed 4 or more years of college: 1971–98



SOURCE: Indicator 59, Condition 1999.

However, the trend toward college completion has not been smooth throughout this period. The percentage of the population ages 25–29 with a bachelor's degree or more rose between 1971 and 1978, and then declined or remained about the same until the early 1980s. The percentage then began to increase again and has accelerated in the past 5 years.

The increase in the rate of attainment between 1971 and 1978 followed a period in the 1960s when the earnings premium for college graduates relative to high school graduates was nearly as high as it is today. In contrast, the decline or stability in the rate of attainment between 1978 and 1982 coincided with the decline in the wage premium that occurred during the 1970s. This decline signified that there were more bachelor's degree recipients than there

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were jobs for them.[37] With some delay in the rise of bachelor's degree attainment, both the college wage premium and the rate of bachelor's degree attainment have risen since 1982. This indicates a growing demand in the economy for individuals with bachelor's degrees.

Paralleling the trends in the immediate transition from high school to college, the trends in the completion of bachelor's degrees are different for blacks, whites, and Hispanics. Between 1971 and 1978, the white rate of bachelor's degree attainment increased at the same rate as the black and the Hispanic rates so that the gaps between the white and black, and the white and Hispanic, rates did not increase. Throughout this period, the black rate was about 12 percentage points less on average than the white rate, and the Hispanic rate was about 14 percentage points less on average than the white rate. Between 1978 and 1982, the white rate of attainment fell but not faster or slower than either the black or Hispanic rates in statistically significant terms. Since 1981, the white rate of bachelor's degree completion has risen faster than the Hispanic and black rates. Between 1982 and 1998, the gap for blacks grew from 11 to 17 percentage points, whereas the gap for Hispanics increased from 11 to 18 percentage points.

One of the reasons why the black and Hispanic rates of college completion are lower than the white rate may be that once black and Hispanic students are enrolled, they are less likely to persist toward completing a degree or certificate than white students. Among students who enrolled in college for the first time in 1989–90, 48 percent of whites received a bachelor's degree by the spring of 1994, whereas 34 percent of blacks and 32 percent of Hispanics did so (*Indicator* 12, Condition 1998).

Nonetheless, the percentages of blacks graduating in fields of study they have been under- or overrepresented compared with whites have been rising. Between 1977 and 1996, the concentration of blacks in education and the social and behavioral sciences fell, while their concentration in engineering, natural sciences, and business management rose. An index of the dissimilarity in the concentration of blacks and whites in different fields of study fell from 12.7 in 1977 to 8.5 in 1996 (*Indicator 57*). This dissimilarity index is the percentage of blacks earning bachelor's degrees in a given year who would have to change fields in order to make their percentage distribution among fields similar to that for white students.

The trends are different for Hispanics. They were better represented across fields in 1971 than blacks but their extent of representation did not decline by as much by 1996. The dissimilarity index for Hispanics declined from 8.7 to 8.5 during the same period (*Indicator 57*).

Conclusions

Since the early 1980s, some progress has been made in improving education in the United States, but the directions of change are mixed. Reform efforts are more widespread in elementary and secondary education than in higher education, but many are concerned about issues of its cost, accessibility, and quality.

Student performance on the NAEP long-term trend assessments has improved since the early 1980s in mathematics and science, but not in reading. In addition, student performance on the main NAEP assessments has shown some improvements in mathematics and reading at some grade levels and no declines. These assessments are specifically designed to measure a broader range of higher-order thinking skills and capabilities for using knowledge than are the trend assessments. Between 1990 and 1996, the percentage of students performing above the basic level of proficiency in mathematics has increased. At least two-thirds of 31 states participating in these mathematics assessments also showed improvements in student proficiency scores, and none had declining scores. In contrast, little change has occurred since the early 1970s in reading.

Since the early 1980s, students have been taking more courses in core academic subjects in accordance with the recommendations of *A Nation at Risk*. The difficulty of these courses has increased as well. Greater percentages of high school graduates are completing Algebra I and higher-level mathematics courses and courses in biology, chemistry, and physics than ever before. Also, the proportions of students who take Advanced Placement exams have increased.

Although student performance on the NAEP mathematics and science assessments has improved in recent years, students do not fare as well internationally on the TIMSS assessments at the 12th-grade, or upper secondary, level as they do at the 4th-grade level. This low standing of U.S. high school students, coupled with the recent expansion of secondary schooling in other large, industrialized countries, informs the debate over improving the quality of secondary education as a particularly important goal of education reform.

At the college level, the literacy scores of college completers are higher than the scores of those with some college, and higher still than the literacy scores of high school completers. Internationally, the literacy scores of U.S. college graduates were exceeded by those in only one other country that participated in the 1994–95 IALS assessment. With the growth of demand in the U.S. economy for college-educated people, the earnings of bachelor's degree recipients have reached historically high levels since the early 1980s, compared with the earnings of high school completers.

Improving the quality of elementary and secondary education so that students learn more requires changes in methods of teaching and learning. Elementary and secondary teachers report using new methods of instruction intended to develop higher-order thinking skills and capabilities for using knowledge, but many do not feel well prepared to put these new methods to use in their classrooms. However, teachers who have participated in professional development activities related to these new techniques, including collaboration with other teachers, feel better prepared. In addition, teachers are expecting students to respond orally to open-ended questions and are using portfolios as a classroom tool and as a means of encouraging student reflection on their own educational progress. Student use of computers at home and at school has increased, and access to the Internet has expanded dramatically. Still, low- and middle-income students are far more likely to use a computer at school than at home.

At the postsecondary level, many are concerned about the quality of undergraduate education, but national data on change are limited. Undergraduate students are exposed to senior faculty in at least half of their courses, a proportion that is similar across all types of 4-year institutions. Full-time faculty are spending more time in the classroom teaching students and less time on related activities such as grading papers, preparing for class, or advising students. At 2-year institutions, more than half of the faculty are part time.

More than half of postsecondary institutions of all types offer remedial courses, and nearly a third of college freshmen are required to enroll in at least one of them. These courses are intended to help students improve their mathematics, writing, or reading skills to at least the minimums required for college work. The extent of remediation in higher education raises further questions about the quality of secondary education.

Since the early 1970s, some progress has been made in closing the black–white gaps in student academic achievement in elementary and secondary schooling; however, the proficiency scores of blacks still remain behind those of whites. Most of these gains occurred between the early 1970s and mid- to late 1980s, largely preceding the academic reform movement. Since the mid- to late 1980s, the gaps between the achievement scores of blacks and whites have either stayed the same or widened some. The differences between Hispanic and white achievement have not narrowed to the same extent as they have for blacks.

Black rates of high school completion have risen more than those of whites since the early 1970s, closing the gap between the black and white rates significantly. Most of this improvement occurred before the late 1980s. Because Hispanic rates of high school completion have not risen faster than those of whites, the gap between the rates remains the same.

Black and Hispanic rates of college enrollment have risen since the early 1980s, but not as fast as those for whites. Furthermore, the rates of attaining a bachelor's degree have increased faster among young white adults than among their black and Hispanic peers over the same period. Consequently, the gaps in higher education attainment between whites and Hispanics and between whites and blacks have grown. This widening of the gaps in higher education is different from the elementary and secondary levels, where the high school completion rate of blacks has risen from 23 percentage points less than the rate of whites in 1971 to 5 percentage points less in 1998.

Improving the quality of education for all students requires the support of parents and society at large. The investments of time and money these individuals make in education can significantly affect the quality of educational opportunities available to children in elementary and secondary education and to students when they enter higher education.

Many parents are enrolling their children in early childhood programs and engaging in early literacy activities with their young children. Parents are attending school meetings and parent-teacher conferences. Children whose fathers have higher levels of involvement in their schools enjoy school more and are less likely to have difficulties in school.

The education levels of parents contribute to their support of their children's education, and these levels are increasing. Parental education levels have increased and will continue to do so if the percentages of the population who complete college continue to increase. The children of parents who are college educated are more likely to read to their children, and these children, are, in turn, more likely to attend college.

In 1995, the United States spent 3.5 percent of its gross national product (GNP) on elementary–secondary education, and 1.1 percent on higher education. Among large, industrialized countries, only Canada spent higher proportions of its GNP on education. At the elementary–secondary level, the index of total institutional revenues per student divided by per capita income has generally increased over time, but it decreased slightly between 1994 and 1995. The national index for higher education was considerably higher in 1970 than it was in 1996 but has been relatively stable in recent years.

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Section I. Learner Outcomes

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Trends in the science performance of 9-, 13-, and 17-year-olds

Competence in science is an important outcome of education. The ability to apply scientific information, interpret data, and make inferences about scientific findings is required in a world that relies on technological and scientific advances.

- In 1996, average science performance was higher at all three age levels than in 1982. However, due to declining science scores in the 1970s, scores for 13-year-olds were about the same in 1996 as in 1970 and, for 17-year-olds, were lower in 1996 than in 1970. For 9-year-olds, science performance was higher in 1996 than in 1970.

- In 1996, the average science performance of blacks and Hispanics remained well below that of whites. Nonetheless, the performance gap between whites and blacks at age 9 was smaller in 1996 than in 1970. Between whites and Hispanics at age 13, the gap was smaller in 1996 than in 1977.

- Evidence shows that the difference in science performance scores between the ages of 9 and 13 is similar across racial–ethnic groups, while between the ages of 13 and 17, the change is much greater for white students than it is for black students. For example, on average, white and black 13-year-olds who were assessed in 1990 scored 32 and 30 points higher, respectively, than did 9-year-olds who were assessed 4 years earlier, in 1986. In 1994, however, white 17-year-olds scored 42 points higher than white 13-year-olds did in 1990, while black 17-year-olds scored 31 points higher than their 13-year-old counterparts in 1990.

Average science performance (scale score), by sex and age: 1970–96

	Total			Male			Female		
Year	Age 9	Age 13	Age 17	Age 9	Age 13	Age 17	Age 9	Age 13	Age 17
1970	225	255	305	228	257	314	223	253	297
1973	220	250	296	223	252	304	218	247	288
1977	220	247	290	222	251	297	218	244	282
1982	221	250	283	221	256	292	221	245	275
1986	224	251	289	227	256	295	221	247	282
1990	229	255	290	230	259	296	227	252	285
1992	231	258	294	235	260	299	227	256	289
1994	231	257	294	232	259	300	230	254	289
1996	230	256	296	232	261	300	228	252	292

Average science performance (scale score), by race–ethnicity and age: 1970–96

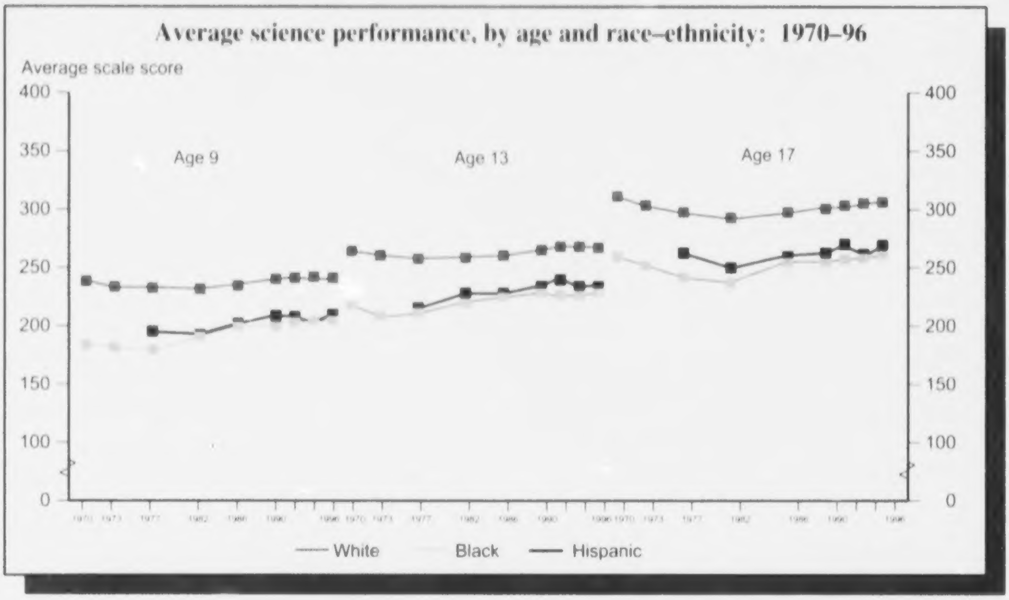
	White			Black			Hispanic		
Year	Age 9	Age 13	Age 17	Age 9	Age 13	Age 17	Age 9	Age 13	Age 17
1970	236	263	312	179	215	258	—	—	—
1973	231	259	304	177	205	250	—	—	—
1977	230	256	298	175	208	240	192	213	262
1982	229	257	293	187	217	235	189	226	249
1986	232	259	298	196	222	253	199	226	259
1990	238	264	301	196	226	253	206	232	262
1992	239	267	304	200	224	256	205	238	270
1994	240	267	306	201	224	257	201	232	261
1996	239	266	307	202	226	260	207	232	269

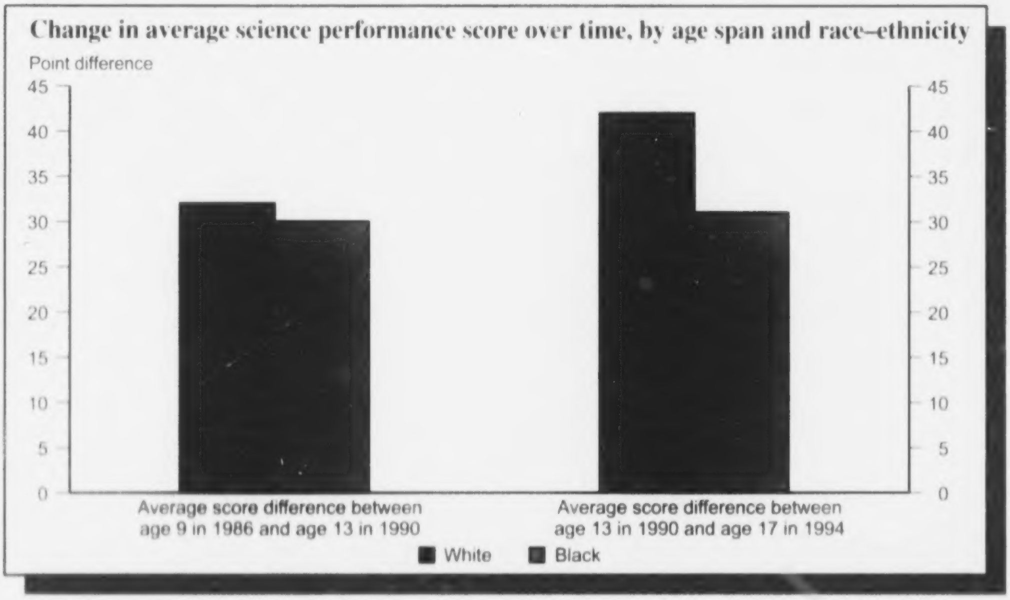
— Not available.

NOTE: The science performance scale has a range from 0 to 500. See supplemental table 1-1 for detailed explanations of levels.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *NAEP 1996 Trends in Academic Progress*, revised 1998.

Average science performance


Average science performance, by age and race–ethnicity: 1970–96


Change in average science performance score over time, by age span and race–ethnicity

NOTE: The science performance scale has a range from 0 to 500. See supplemental table 1-1 for detailed explanations of levels. The data in the second graph are not longitudinal and should not be interpreted as such. For example, students assessed at age 9 are different from students assessed at age 13 or 17.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress. *NAEP 1996 Trends in Academic Progress*, revised 1998.

Mathematics performance of 4th-, 8th-, and 12th-grade students

For the past 25 years, the National Assessment of Educational Progress (NAEP) has assessed student performance in mathematics. A new NAEP framework has evolved due to advances in assessment methodology and changes in curricular and educational approaches in mathematics. This new framework reflects the National Council of Teachers of Mathematics Curriculum and Evaluation Standards for School Mathematics.

- Overall, average mathematics performance scores improved between 1990 and 1996 for all students in grades 4, 8, and 12. Similarly, the percentage of students scoring at or above the basic levels also increased during the period at all three grade levels (see supplemental tables 2-1 and 2-2).
- Improvement in mathematics performance scores varies by state. Of the 38 jurisdictions that participated in the 4th-grade assessment in 1992 and 1996, 15 jurisdictions showed significant improvements in the mathematics scores of public school students during that period. Of the 36 jurisdictions that participated in the 8th-grade assessment, 13 showed significant improvements in student scores between 1992 and 1996. The remaining jurisdictions showed either decreases or no change (see supplemental table 2-3).
- Average scores for white students have remained higher than those for black and Hispanic students at all three grade levels; the gaps in scores between black or Hispanic and white students also remained similar between 1990 and 1996.
- While the mathematics scores for males and females were similar in the 4th and 8th grades, males outscored females in the 12th grade in 1990 and 1992. In 1996, scores for 12th-grade males and females were similar.

Average mathematics performance (scale score), by grade and selected student characteristics: 1990, 1992, and 1996

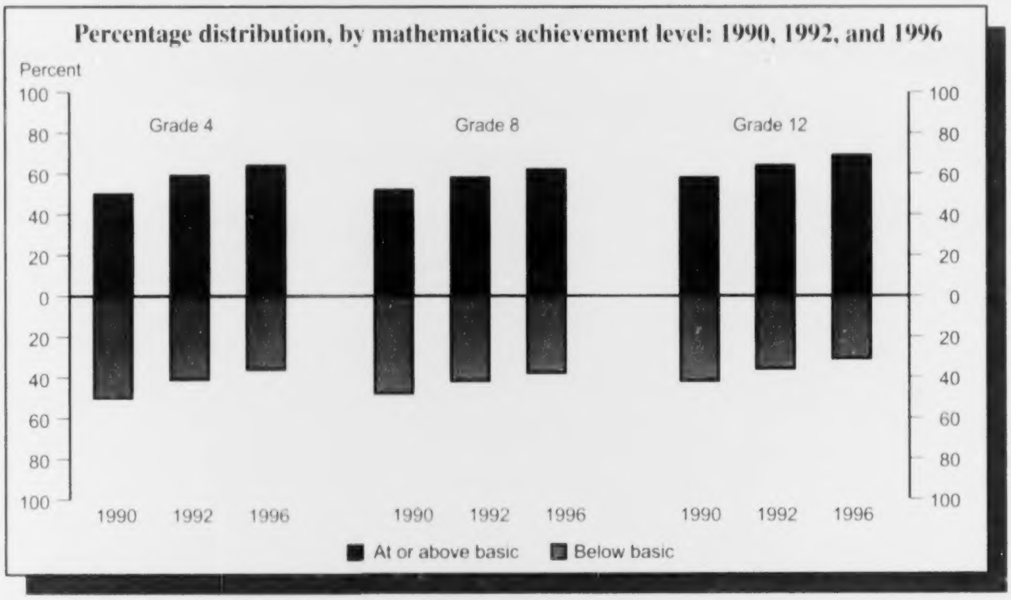
Selected student characteristics	Grade 4			Grade 8			Grade 12		
	1990	1992	1996	1990	1992	1996	1990	1992	1996
Total	**213**	**220**	**224**	**263**	**268**	**272**	**294**	**300**	**304**
Sex									
Male	214	221	226	263	268	272	297	301	305
Female	213	219	222	262	269	272	292	298	303
Race-ethnicity									
White	220	228	232	270	278	282	301	306	311
Black	189	193	200	238	238	243	268	276	280
Hispanic	198	202	206	244	247	251	276	284	287
Asian/Pacific Islander	228	232	232	279	289	274	311	316	319
American Indian/ Alaskan Native	208	211	216	246	255	264	—	—	297
Parents' highest education level									
Less than high school	202	205	205	242	249	254	272	279	282
Graduated high school	209	215	219	255	257	261	283	288	294
Some education after high school	222	225	232	268	271	279	297	299	302
Graduated college	221	227	232	274	281	282	306	311	314
Type of school									
Public	212	219	222	262	267	271	294	297	303
Nonpublic	224	228	237	272	281	284	300	314	315

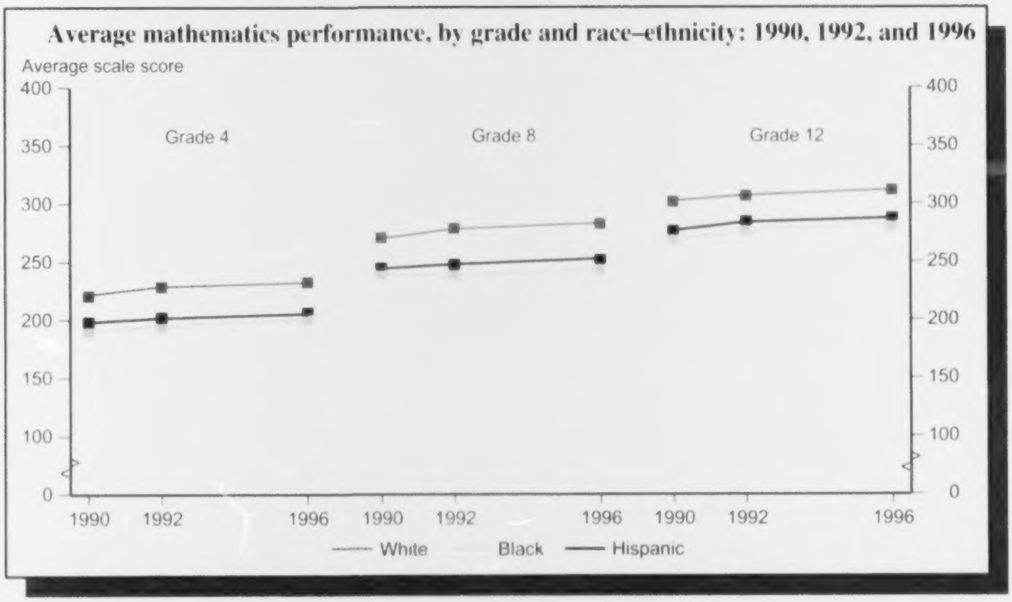
— Too few sample observations for a reliable estimate.

NOTE: The mathematics performance scale has a range of 0 to 500. See supplemental table 2-1 for detailed explanations of levels.

SOURCE: U.S. Department of Education, National Center for Education Statistics. *NAEP 1996 Mathematics Report Card for the Nation and the States: Findings from the National Assessment of Educational Progress.* 1997.

Mathematics performance of 4th-, 8th-, and 12th-grade students


Percentage distribution, by mathematics achievement level: 1990, 1992, and 1996


Average mathematics performance, by grade and race–ethnicity: 1990, 1992, and 1996

NOTE: The mathematics performance scale has a range of 0 to 500. See supplemental table 2-1 for detailed explanations of levels.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *NAEP 1996 Mathematics Report Card for the Nation and the States: Findings from the National Assessment of Educational Progress*, 1997.

International comparisons of student performance in mathematics and science

The technical and scientific skills of a nation's work force are a significant component of its economic competitiveness. The Third International Mathematics and Science Study (TIMSS) assessed the mathematics and science performance of students around the world. By comparing the mathematics and science achievement of students in countries around the world, it is possible to monitor the progress of the United States toward the National Education Goal of being first in the world in mathematics and science achievement.

- Fourth-graders in the United States scored above the 26-nation average in both mathematics and science. In science, only students in Korea outperformed U.S. 4th-graders, while in mathematics, U.S. 4th-graders outperformed their peers in 12 countries and scored below their peers in 7 countries (see supplemental table 3-1).

- Eighth-graders in the United States scored above the 41-nation average in science and below the international average in mathematics. In science, U.S. 8th-graders outperformed their peers in 15 countries and scored below their peers in 9 countries. In mathematics, 8th-graders in 20 countries outperformed 8th-graders in the United States. Eighth-graders in the United States had higher mathematics scores than their peers in 7 countries (see supplemental table 3-2).

- Compared with students in their last year of secondary school, U. S. 12th-graders scored below the 21-nation average in both mathematics and science. In science, U.S. 12th-graders scored below students in the final year of secondary school in 11 countries and outperformed students in the final year of secondary school in 2 countries. In mathematics, U. S. students scored below students in the final year of secondary school in 14 countries and outperformed students in the final year of secondary school in 2 countries.

Average mathematics and science performance scores of students in the final year of secondary school, by sex and country: 1995

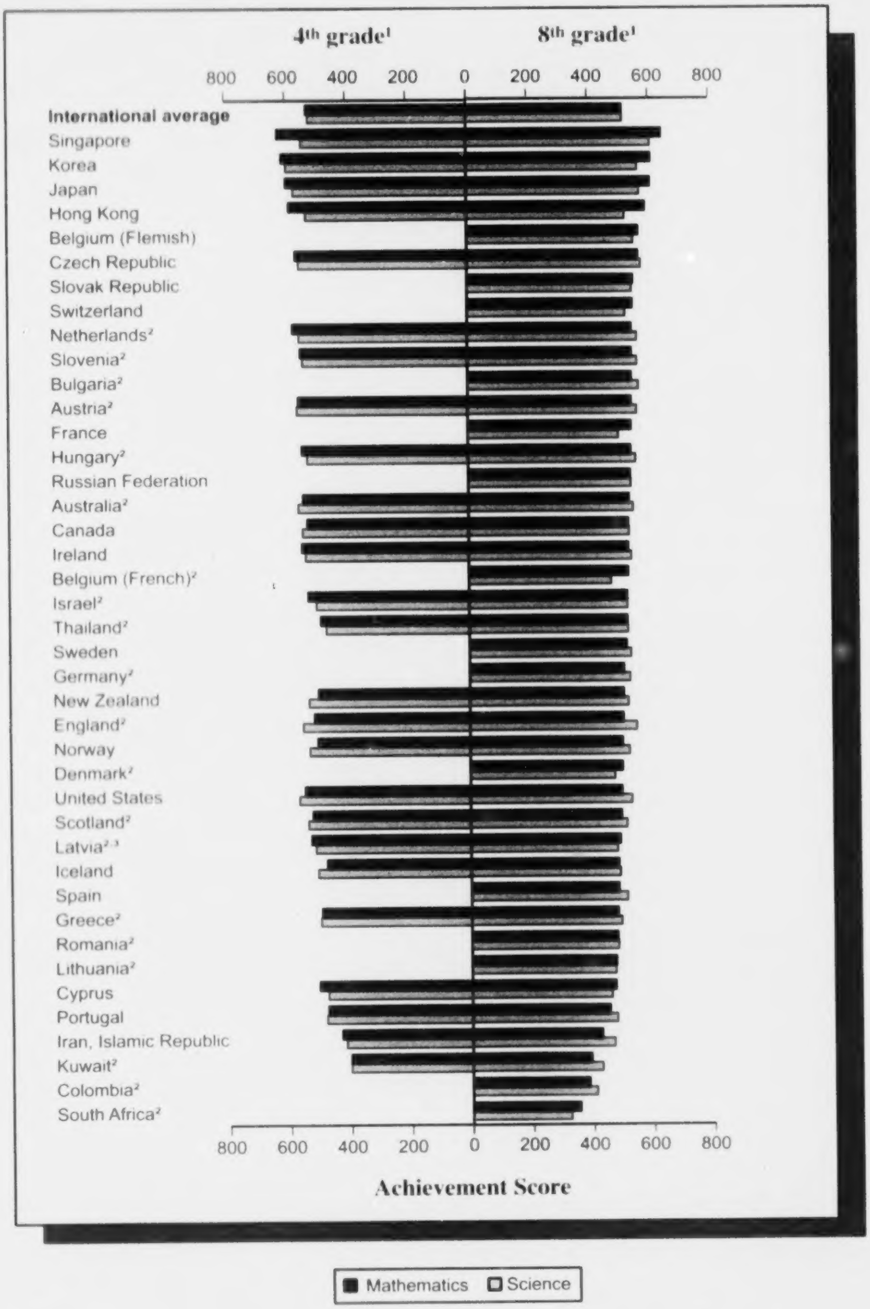
	Mathematics			Science		
Country	Overall	Male	Female	Overall	Male	Female
International average	**500**	**518**	**485**	**500**	**521**	**482**
Netherlands*	560	585	533	558	582	532
Sweden	552	573	531	559	585	534
Denmark*	547	575	523	509	532	490
Switzerland	540	555	522	523	540	500
Iceland*	534	558	514	549	572	530
Norway*	528	555	501	544	574	513
France*	523	544	506	487	508	468
Australia*	522	540	510	527	547	513
New Zealand	522	536	507	529	543	515
Canada*	519	537	504	532	550	518
Austria*	518	545	503	520	554	501
Slovenia*	512	535	490	517	541	494
Germany*	495	509	480	497	514	478
Hungary	483	485	481	471	484	455
Italy*	476	490	464	475	495	458
Russian Federation*	471	488	460	481	510	463
Lithuania*	469	485	461	461	481	450
Czech Republic	466	488	443	487	512	460
United States*	461	466	456	480	492	469
Cyprus*	446	454	439	448	459	439
South Africa*	356	365	348	349	367	333

* Country did not satisfy one or more of the sampling or other guidelines. See the supplemental note to this indicator for detailed explanations.

NOTE: Nations are sorted from highest to lowest by average mathematics score.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Pursuing Excellence: A Study of U.S. Twelfth-Grade Mathematics and Science Achievement in International Context*, 1998.

Average mathematics and science performance scores, by grade and country: 1995



[1] Fourth or 8th grade in most nations.

[2] Country did not satisfy one or more of the sampling or other guidelines for either the 4th- or 8th-grade assessment. See the supplemental note to this indicator for detailed explanations.

[3] Latvian-speaking schools.

NOTE: Nations are sorted from highest to lowest average mathematics scores for 8th grade. Only 26 nations participated at the 4th-grade level of the 41 nations participating at the 8th-grade level.

SOURCE: International Association for the Evaluation of Educational Achievement, TIMSS International Study Center, *Mathematics Achievement in the Primary School Years, Science Achievement in the Primary School Years, IEA's Third International Mathematics and Science Study*, 1997; *Mathematics Achievement in the Middle School Years, Science Achievement in the Middle School Years, IEA's Third International Mathematics and Science Study*, 1996.

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Trends in the reading performance of 9-, 13-, and 17-year-olds

Reading ability is essential to students' educational progress. Since the early 1970s, the National Assessment of Educational Progress (NAEP) has assessed the trends in students' reading performance. These trends provide a picture of how student performance in reading has changed over time, specifically among students of different ages and racial–ethnic groups.

- For 9- and 13-year-olds, average reading scores improved slightly between 1971 and 1980 and showed little or no change between 1980 and 1996. Scores for 17-year-olds have remained relatively consistent since 1971.
- Females outscored males in reading performance across all age groups.
- During these periods, reading scores of black and Hispanic students were lower than those of white students for all age groups. However, the black–white score gap, in particular, changed over time. For all age groups, the gap decreased between 1971 and 1988, yet showed no significant change between 1988 and 1996 for 9- and 17-year-olds and increased for 13-year-olds.

Average reading performance (scale score), by sex and age: 1971–96

	Total			Male			Female		
Year	Age 9	Age 13	Age 17	Age 9	Age 13	Age 17	Age 9	Age 13	Age 17
1971	208	255	285	201	250	279	214	261	291
1975	210	256	286	204	250	280	216	262	291
1980	215	259	286	210	254	282	220	263	289
1984	211	257	289	208	253	284	214	262	294
1988	212	258	290	208	252	286	216	263	294
1990	209	257	290	204	251	284	215	263	297
1992	211	260	290	206	254	284	215	265	296
1994	211	258	288	207	251	282	215	266	295
1996	212	259	287	207	253	280	218	265	294

Average reading performance (scale score), by race–ethnicity and age: 1971–96

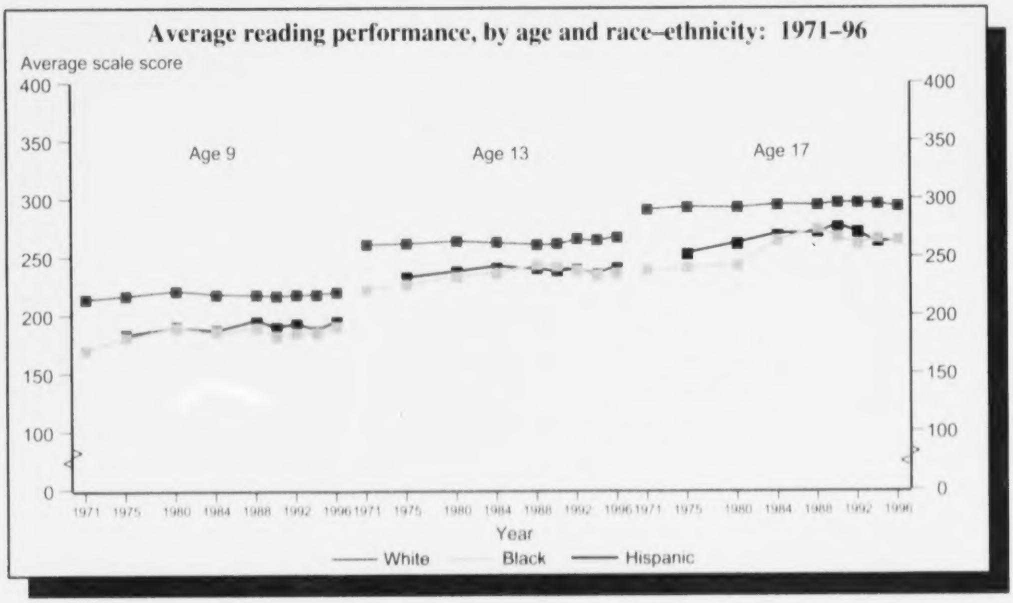
	White			Black			Hispanic		
Year	Age 9	Age 13	Age 17	Age 9	Age 13	Age 17	Age 9	Age 13	Age 17
1971	214	261	291	170	222	239	—	—	—
1975	217	262	293	181	226	241	183	232	252
1980	221	264	293	189	233	243	190	237	261
1984	218	263	295	186	236	264	187	240	268
1988	218	261	295	189	243	274	194	240	271
1990	217	262	297	182	242	267	189	238	275
1992	218	266	297	185	238	261	192	239	271
1994	218	265	296	185	234	266	186	235	263
1996	220	267	294	190	236	265	194	240	265

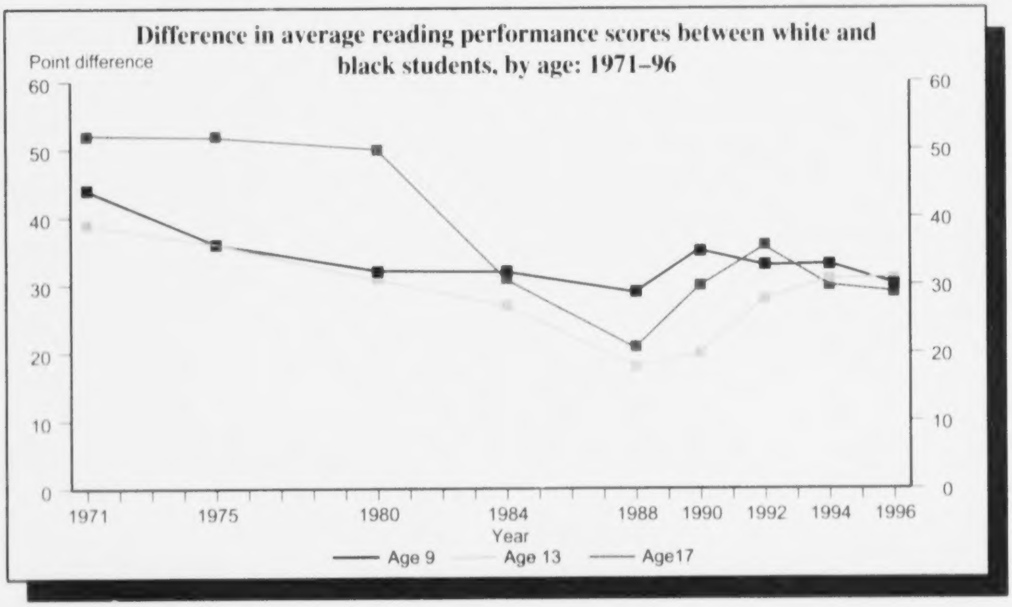
— Not available

NOTE: The reading performance scale has a range from 0 to 500. See supplemental table 4-1 for detailed explanations of levels. See the supplemental note to *Indicator 5* for a description of the differences between the main NAEP reading assessment, on which *Indicator 5* is based, and the long-term trend NAEP assessment, on which this indicator is based.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *NAEP 1996 Trends in Academic Progress*, revised 1998.

Trends in reading performance


Average reading performance, by age and race–ethnicity: 1971–96


Difference in average reading performance scores between white and black students, by age: 1971–96

NOTE: The reading performance scale has a range from 0 to 500. See supplemental table 4-1 for detailed explanations of levels. See the supplemental note to *Indicator 5* for a description of the differences between the main NAEP reading assessment, on which *Indicator 5* is based, and the long-term trend NAEP assessment, on which this indicator is based.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *NAEP 1996 Trends in Academic Progress*, revised 1998.

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Reading performance of 4th-, 8th-, and 12th-grade students

Since the early 1970s, the National Assessment of Educational Progress (NAEP) has assessed long-term trends in basic reading competencies. Beginning in 1992, and continuing in 1994 and 1998, a new "main NAEP" reading assessment was administered to reflect changing instructional practices in classrooms and standards of learning based on current curriculum frameworks. The data used in this indicator come from this new assessment, the purpose of which is to assess reading for literacy experience, reading to gain information, and reading to perform a task.

- Between 1992 and 1998, average reading performance scores remained relatively stable for 4th-grade students and increased slightly for 8th-grade students. The reading performance scores for 12th-grade students decreased between 1992 and 1994, but rose again in 1998. For both 8th- and 12th-grade students, the total percentage of students scoring below the basic level decreased between 1994 and 1998, while for 4th-grade students, the percentage scoring below this level remained the same (see supplemental tables 5-1 and 5-2).

- In all three years, female students outperformed male students in reading performance at the 4th-, 8th-, and 12th-grade levels.

- Average reading scores for white students were higher than those for black and Hispanic students at all three grade levels for all three years. The gap in scores between black and white students remained similar between 1992 and 1998 for all grades.

- Reading scores also varied by type of school and location. In all three years, on average, students attending nonpublic schools consistently scored higher than students attending public schools at the 4th-, 8th-, and 12th-grade levels. In 1998, 4th- and 8th-grade students in schools located in central cities generally scored lower than their peers in urban fringe or rural locations, while at the 12th-grade level, scores were generally the same for students in different types of locations.

Average reading performance (scale score), by grade and selected student characteristics: 1992, 1994, and 1998

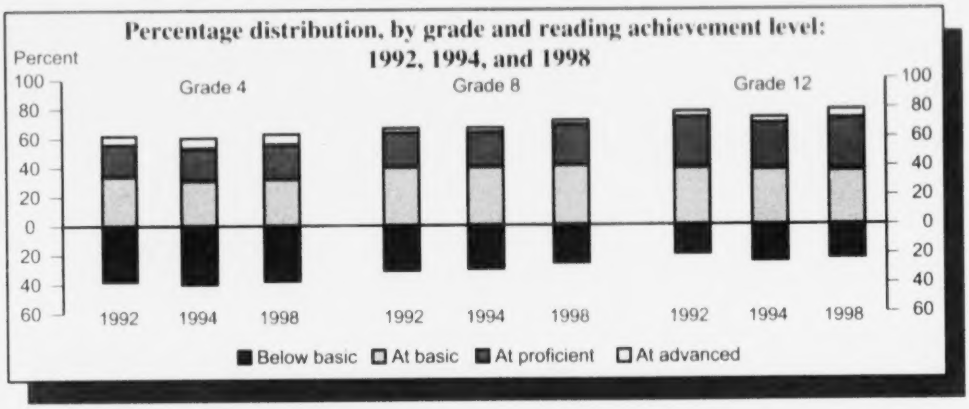
Selected student characteristics	Grade 4			Grade 8			Grade 12		
	1992	1994	1998	1992	1994	1998	1992	1994	1998
Total	**217**	**214**	**217**	**260**	**260**	**264**	**292**	**287**	**291**
Sex									
Male	213	209	214	254	252	257	287	280	283
Female	221	220	220	267	267	270	297	294	298
Race–ethnicity									
White	225	224	227	267	268	272	298	294	298
Black	193	187	194	238	237	243	273	265	270
Hispanic	201	191	196	241	240	244	278	270	275
Asian/Pacific Islander	214	229	225	270	268	271	292	280	289
American Indian/Alaskan Native	207	201	202	251	251	248	—	275	276
Type of school									
Public	215	212	215	258	257	261	290	286	289
Nonpublic	232	231	233	278	279	281	308	301	303
Type of location									
Central city	210	207	211	253	257	258	290	288	290
Urban fringe/large town	221	221	222	265	262	268	294	289	293
Rural/small town	219	214	219	261	259	264	291	285	289

— Not available

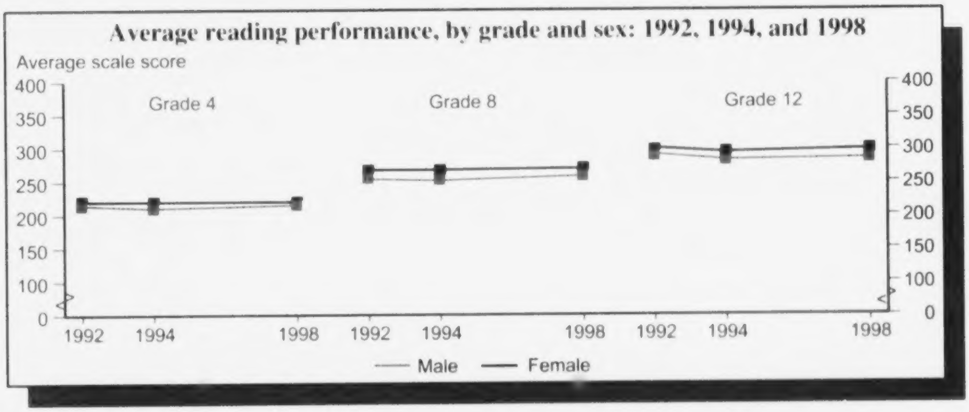
NOTE: The reading performance scale has a range from 0 to 500. See supplemental table 5-1 for detailed explanations of levels. See the supplemental note to this indicator for a description of the differences between the main NAEP reading assessment, on which this indicator is based, and the long-term trend NAEP assessment, on which *Indicator 4* is based.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *NAEP 1998 Reading: A Report Card for the Nation and the States*, 1999.

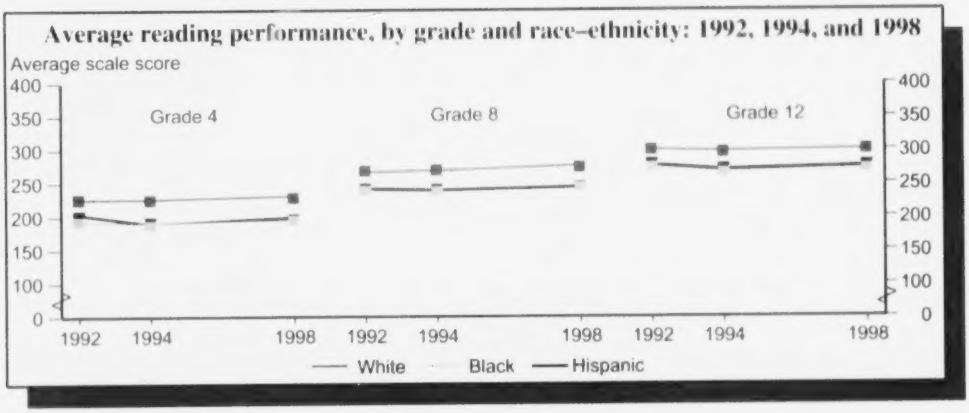
Average reading performance



Percentage distribution, by grade and reading achievement level: 1992, 1994, and 1998



Average reading performance, by grade and sex: 1992, 1994, and 1998



Average reading performance, by grade and race–ethnicity: 1992, 1994, and 1998

NOTE: The reading performance scale has a range from 0 to 500. See supplemental table 5-1 for detailed explanations of levels.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *NAEP 1998 Reading, A Report Card for the Nation and the States*, 1999.

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Trends in the writing performance of 4th-, 8th-, and 11th-grade students

Effective writing skills are important in all stages of life. In business, as well as in school, individuals often must convey complex ideas and information in a clear, succinct manner. In the business, good writing skills are essential for accurately communicating information, influencing others, and documenting tasks. In school, inadequate writing skills can inhibit achievement across the curriculum, while good writing can help students analyze information and convey ideas.

- Average writing performance scores remained relatively stable for 4th-grade students between 1984 and 1996. In contrast, scores for 8th-grade students declined between 1984 and 1990, increased in 1992, and then dropped back to their original level. The average writing scale score for 11th-grade students was slightly lower in 1996 than in 1984.

- In general, females outscored males in writing performance at all grade levels since 1984.

- Scores for black and Hispanic students remained relatively unchanged since 1984 at all grade levels. Although scores dropped slightly for white 11th-grade students between 1984 and 1996, white students continued to outscore black and Hispanic students at all grade levels.

- In 1996, 83 percent of 11th-grade students could write beginning, focused, clear responses (level 250); 31 percent were generally able to write complete, sufficient responses (level 300); and 2 percent provided effective, coherent responses (level 350; see supplemental tables 6-1 and 6-2).

- In 1996, average writing scale scores for 4th-grade students ranged from 142 at the 5th percentile to 268 at the 95th percentile. At the 8th-grade level, the median score (50th percentile) was 264, indicating that the highest scoring 4th-grade students achieved approximately the same performance as the average 8th-grade student (see supplemental table 6-3).

Average writing performance (scale score), by sex and grade: 1984–96

	Total			Male			Female		
Year	Grade 4	Grade 8	Grade 11	Grade 4	Grade 8	Grade 11	Grade 4	Grade 8	Grade 11
1984	204	267	290	201	258	281	208	276	299
1988	206	264	291	199	254	282	213	274	299
1990	202	257	287	195	246	276	209	268	298
1992	207	274	287	198	264	279	216	285	296
1994	205	265	285	196	254	276	214	278	293
1996	207	264	283	200	251	275	214	276	292

Average writing performance (scale score), by race–ethnicity and grade: 1984–96

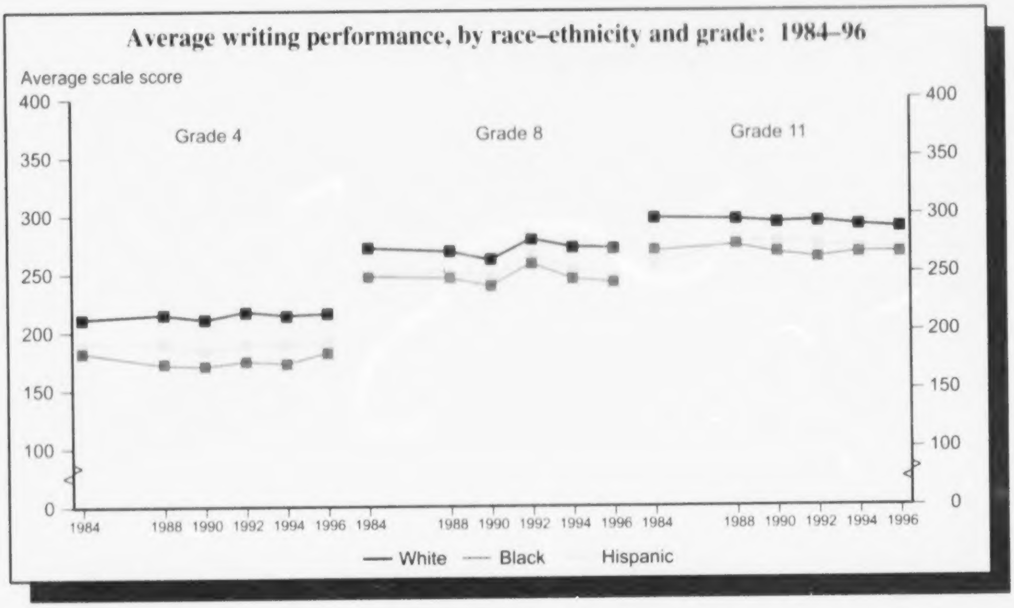
	White			Black			Hispanic		
Year	Grade 4	Grade 8	Grade 11	Grade 4	Grade 8	Grade 11	Grade 4	Grade 8	Grade 11
1984	211	272	297	182	247	270	189	247	259
1988	215	269	296	173	246	275	190	250	274
1990	211	262	293	171	239	268	184	246	277
1992	217	279	294	175	258	263	189	265	274
1994	214	272	291	173	245	267	189	252	271
1996	216	271	289	182	242	267	191	246	269

NOTE: The writing performance scale has a range from 0 to 500. See supplemental table 6-1 for detailed explanations of levels.

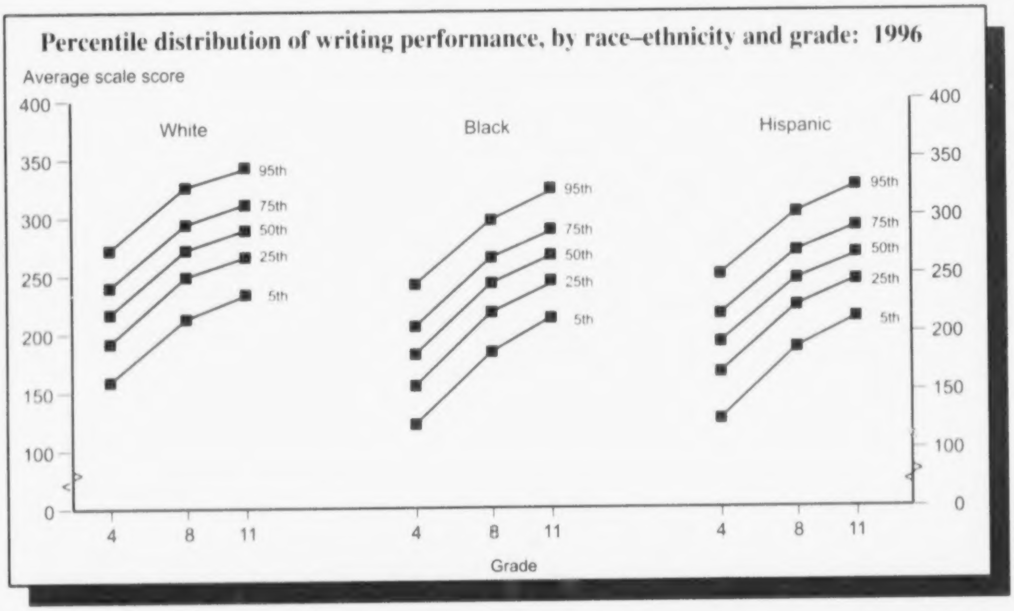
SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *NAEP 1996 Trends in Academic Progress*, revised 1998.

Average writing performance

Average writing performance, by race–ethnicity and grade: 1984–96



Percentile distribution of writing performance, by race–ethnicity and grade: 1996



NOTE: The writing performance scale has a range from 0 to 500. See supplemental table 6-1 for detailed explanations of levels.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress. *NAEP 1996 Trends in Academic Progress*, revised 1998.

Arts performance of 8th-grade students

Gaining experience in the visual arts, music, and theatre are all key components of a child's development and education. Through exposure to the arts, students are given opportunities to be creative, disciplined, and persistent; to develop skills; and to demonstrate these new skills to their teachers, parents, and peers. The purpose of the 1997 National Assessment of Educational Progress (NAEP) Arts Education Assessment was to provide a comprehensive picture of the arts performance of 8th-grade students, assessing the extent to which students are skilled in creating, performing, and responding to the visual arts, music, and theatre.

- In 1997, 8th-grade students' performance in the arts varied by certain student background characteristics. For example, females consistently outscored males in all categories of the NAEP arts assessment. Among racial–ethnic groups, whites outperformed blacks and Hispanics on all scales except for the creating score in music. In addition, students whose parents were college graduates scored higher on all arts assessment scales than those whose parents' highest level of education was a high school diploma or less.
- There appear to be no consistent relationships between performance in the arts and many characteristics of an arts education, such as frequency of instruction, curriculum availability, or staff certification. However, the type of space and facilities in which the arts were taught in schools was related to arts performance. Students in schools that taught music in rooms specifically dedicated to the subject scored higher in music creating and performing than their peers who took music in schools with no dedicated space for instruction (see supplemental table 7-1).

Average music, theatre, and visual arts performance percentage scores and scale scores of 8th-grade students, by selected student characteristics: 1997

	Music			Theatre*		Visual arts	
Selected student characteristics	Creating (0–100 percent)	Performing (0–100 percent)	Responding (0–300)	Creating/ performing (0–100 percent)	Responding (0–300)	Creating (0–100 percent)	Responding (0–300)
Total	**34**	**34**	**150**	**49**	**150**	**43**	**150**
Sex							
Male	32	27	140	46	140	42	146
Female	37	40	160	52	158	45	154
Race–ethnicity							
White	36	36	158	52	159	46	159
Black	34	30	130	39	120	37	124
Hispanic	29	24	127	44	139	38	128
Asian	31	—	152	—	—	45	153
Type of school							
Public	34	34	149	48	146	43	148
Nonpublic	37	33	158	—	—	44	167
Parents' highest education level							
Did not finish high school school	24	21	129	42	131	36	125
Graduated high school	29	29	139	42	130	41	138
Some education after high school	35	34	150	49	153	44	153
Graduated college	39	39	159	52	157	46	158

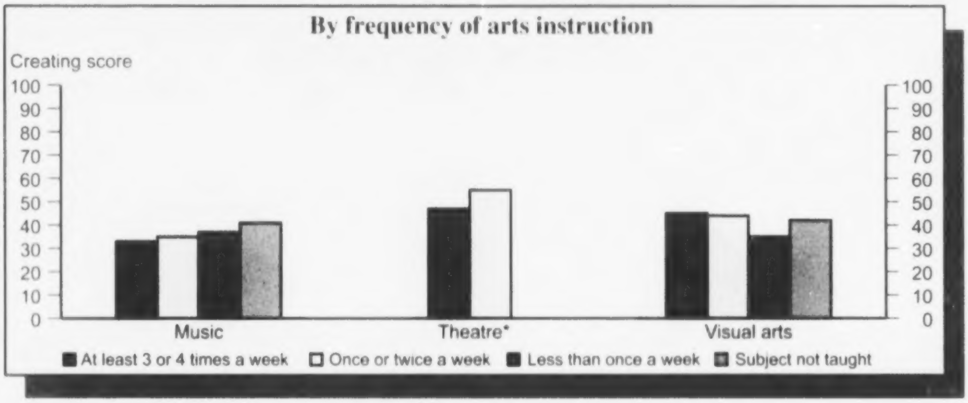
— Too few sample observations for a reliable estimate.

* The theatre assessment was administered to a targeted sample of students in schools with theatre instructional programs who had taken at least 30 hours of theatre classes.

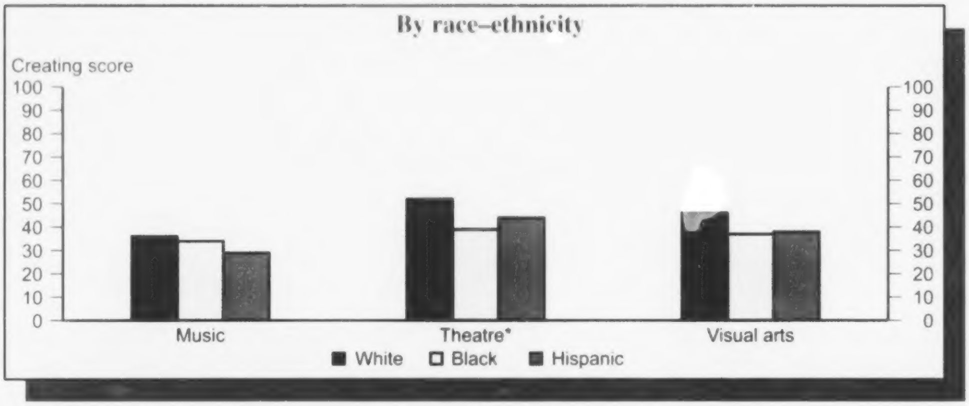
NOTE: Students were assessed in the arts on three separate scales: Responding, Creating, and Performing. Because sampling and scoring procedures varied by arts subject and arts performance type, comparisons cannot be made across assessments. See the supplemental note to this indicator for a detailed explanation of the design of the NAEP Arts Education Assessment, including definitions for "Responding," "Creating," and "Performing."

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *The NAEP 1997 Arts Report Card*, 1998.

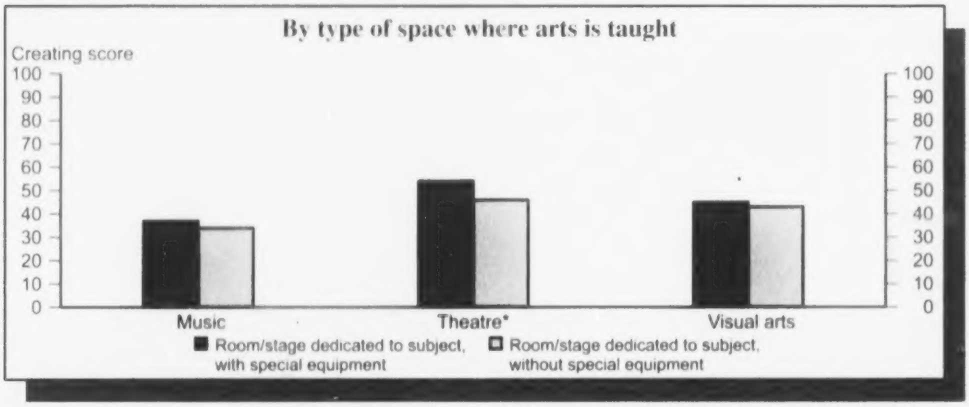
Average music, theatre, and visual arts creating score of 8th-grade students, by selected instructional characteristics: 1997



By frequency of arts instruction



By race–ethnicity



By type of space where arts is taught

* The theatre assessment was administered to a targeted sample of students in schools with theatre instructional programs. For measuring the frequency of arts instruction, there were too few sample observations for a reliable estimate of "less than once a week" and "subject not taught." The "creating" scale for theatre is defined as creating/performing.

NOTE: Students were assessed in the arts on three separate scales: Responding, Creating, and Performing. Because sampling and scoring procedures varied by arts subject and arts proficiency type, comparisons cannot be made across assessments. See the supplemental note to this indicator for a detailed explanation regarding the design of the NAEP Arts Education Assessment, including definitions for "Responding," "Creating," and "Performing."

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *The NAEP 1997 Arts Report Card*, 1998.

International comparisons of adult literacy

Literacy is viewed as one of the fundamental tools necessary for successful economic performance in industrialized societies. The International Adult Literacy Survey (IALS) assessed adult literacy in 12 countries. The five literacy levels expressed along three scales—prose, document, and quantitative—measure a range of literacy, from the basic ability to locate information within simple text to the ability to understand and use printed information in daily activities, at home, at work, and in the community. As society becomes more complex and demands for literacy in the job market continue to change, concern about adults' ability to use written information to function in society continues to increase.

- Approximately one-fifth of adults in the United States scored at or above level 4 on the prose, document, and quantitative literacy scales. Among the 11 other countries that participated in the IALS, the only countries exceeding the United States in the percentage of adults scoring at the highest levels of literacy were Sweden (on all three scales) and Canada (on the document scale).

- One-quarter or less of adults in the United States performed at level 1 on any of the three scales. Only Poland had a greater percentage of adults scoring at this lowest literacy level. Canada, Ireland, New Zealand, and the United Kingdom had similar percentages of adults scoring at the lowest level of literacy, but Germany, the Netherlands, and Sweden had lower percentages on all three scales.

- The proportion of U. S. adults scoring at level 3 or higher on the document scale increased at each level of education—from 17 percent for those with less than a high school education to 80 percent for those with a college degree. In all countries except Poland, at least three-quarters of adults who had a college education scored at level 3 or above (see supplemental table 8-1).

- Adults in the United States who had not completed a high school program were no more likely than their counterparts in other countries with similar education levels to perform at level 3 or above on the document scale. At the college level, only Belgium had a higher percentage of college graduates scoring at or above level 3 than did the United States, and only Poland had a smaller percentage (see supplemental table 8-1).

Percentage distribution of adults ages 16–65 scoring at each literacy level, by literacy scale and country: 1994 and 1995

	Prose scale				Document scale				Quantitative scale			
Country	Level 1	Level 2	Level 3	Level 4/5	Level 1	Level 2	Level 3	Level 4/5	Level 1	Level 2	Level 3	Level 4/5
Belgium (Flanders)*	18.6	29.0	37.4	15.0	15.0	25.7	41.5	17.5	16.5	23.3	37.0	23.2
Canada	16.6	24.8	36.4	22.3	17.9	23.7	32.7	25.7	16.6	25.6	34.7	23.1
Germany	13.8	35.3	37.3	13.6	9.6	32.0	39.5	18.9	7.0	26.1	43.6	23.4
Ireland*	22.6	30.6	33.7	13.2	25.6	32.0	31.5	10.9	24.9	28.8	30.3	15.9
Netherlands	10.4	29.4	44.7	15.5	10.3	25.5	44.5	19.7	10.0	25.7	44.1	20.3
New Zealand*	18.2	28.5	34.5	18.8	21.1	29.6	32.5	16.8	20.3	28.9	33.9	16.9
Poland	42.7	34.3	19.2	3.7	45.4	30.3	18.5	5.8	39.0	30.6	23.2	7.2
Sweden	7.2	20.7	39.8	32.2	6.3	19.2	38.8	35.7	6.6	19.1	38.4	35.9
Switzerland (French)	18.5	34.3	37.7	9.6	16.4	29.6	37.6	16.3	12.8	25.4	42.7	19.1
Switzerland (German)	19.5	34.2	37.1	9.3	18.4	27.5	36.9	17.3	14.1	25.0	41.9	19.0
United Kingdom*	21.6	30.1	32.6	15.7	23.1	27.6	30.5	18.8	23.4	27.6	30.5	18.5
United States	20.8	24.4	32.8	22.0	23.6	25.0	31.5	19.9	21.0	24.0	31.6	23.5

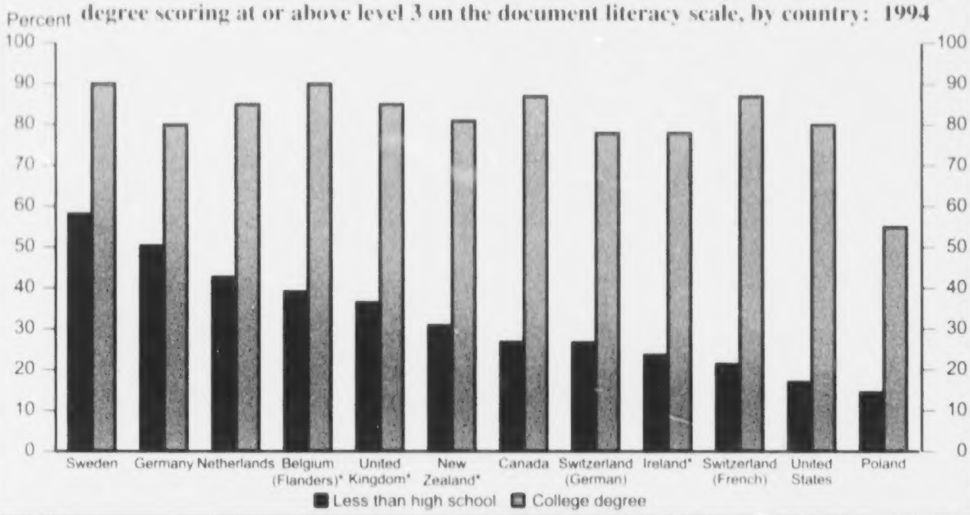
* Data are for 1995.

NOTE: The individuals who performed at level 1 demonstrated the lowest literacy proficiency, while those at level 5 displayed the highest literacy proficiency. See the supplemental note to this indicator for a description of the literacy scales and levels. Details may not add to 100.0 due to rounding.

SOURCE: Organisation for Economic Co-operation and Development, *International Adult Literacy Survey*, unpublished tabulations, 1994, 1995.

International comparisons of adult literacy

Percentage of adults ages 16–65 with less than a high school education or with a college degree scoring at or above level 3 on the document literacy scale, by country: 1994



Countries with a lesser, equal, or greater percentage of adults scoring at or above level 4 compared with the United States, by literacy domain

Literacy domain		
Prose	Document	Quantitative
Sweden	Sweden	Sweden
Canada	Canada	**United States**
United States	**United States**	Germany
New Zealand	Netherlands	Belgium
United Kingdom	Germany	Canada
Netherlands	United Kingdom	Netherlands
Belgium	Belgium	Switzerland (F)
Germany	Switzerland (G)	Switzerland (G)
Ireland	New Zealand	United Kingdom
Switzerland (F)	Switzerland (F)	New Zealand
Switzerland (G)	Ireland	Ireland
Poland	Poland	Poland

NOTE: Countries that are shaded do not differ significantly from the United States. Countries appearing above the shaded area had a higher percentage of adults in levels 4 and 5 than the United States, and countries appearing below the shaded area had a lower percentage.

Countries with a lesser, equal, or greater percentage of adults scoring at level 1 compared with the United States, by literacy domain

Literacy domain		
Prose	Document	Quantitative
Sweden	Sweden	Sweden
Netherlands	Germany	Germany
Germany	Netherlands	Netherlands
Canada	Belgium	Switzerland (F)
New Zealand	Switzerland (F)	Switzerland (G)
Switzerland (F)	Switzerland (G)	Belgium
Belgium	Canada	Canada
Switzerland (G)	New Zealand	New Zealand
United States	United Kingdom	**United States**
United Kingdom	**United States**	United Kingdom
Ireland	Ireland	Ireland
Poland	Poland	Poland

NOTE: Countries that are shaded do not differ significantly from the United States. Countries appearing above the shaded area had a lower percentage of adults in level 1 than the United States, and countries appearing below the shaded area had a higher percentage.

* Data are for 1995.

NOTE: The individuals who performed at level 1 demonstrated the lowest literacy proficiency, while those at level 5 displayed the highest literacy proficiency. See the supplemental note to this indicator for a description of the literacy scales and scores.

SOURCE: Organisation for Economic Co-operation and Development, *International Adult Literacy Survey*, unpublished tabulations, 1994, 1995.

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Citizenship skills

In democratic societies, citizens are generally expected to be reasonably knowledgeable about how government operates; to be interested in and aware of politics; to be able to participate in government; to believe that they can influence what the government does; and to be tolerant of different opinions. Good citizenship must be developed and nurtured, and schools are expected to play a role in this process.

- In 1996, 20 percent of students in grades 9–12 were able to answer four or five (out of five) political knowledge questions correctly. Less than half read national news weekly (41 percent) or watched or listened to news daily (40 percent), and over half claimed to understand politics (55 percent) or would tolerate a public library's carrying a controversial book (57 percent). However, large percentages of students were confident in their political participatory skills such as writing to government (93 percent) and speaking publicly (82 percent), and 88 percent indicated that they thought that people should be allowed to speak against religion or church.

- Parents knew more about politics than did students and were more likely than students to pay attention to politics and to claim that they understand politics. However, students were more likely than parents to believe that their family has a say in what government does.

- Compared with students in grades 9–10, students in grades 11–12 were more likely to be knowledgeable about politics, to read the national news every week, to be confident of their political participatory skills, to claim to understand politics, and to tolerate diversity.

- Regular participants in community service (35 hours or more during the school year) had higher levels of citizenship skills than did students who did not participate. Compared with students who did not participate in community service, regular participants were more likely to answer four or five political knowledge questions correctly, to pay attention to politics through reading, to trust their political participatory skills, and to be politically efficacious (see supplemental tables 9-1 and 9-2).

Percentage of students and parents with various citizenship skills, by grade level (students): 1996

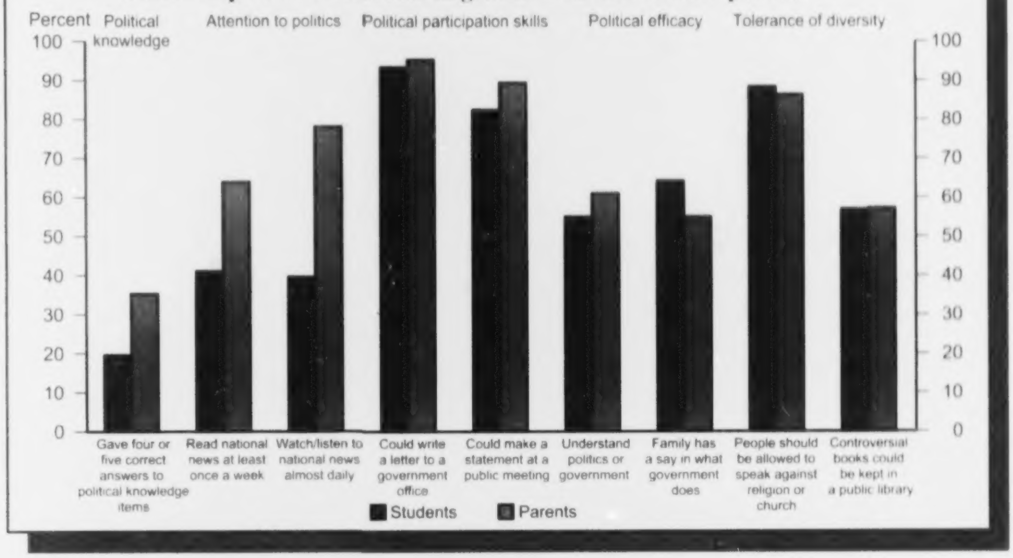
	Students			
Citizenship skill	Total	Grades 9–10	Grades 11–12	Parents
Political knowledge (correct answers out of five)				
None or one	49.1	58.8	38.5	31.7
Two or three	31.3	28.7	34.2	33.0
Four or five	19.6	12.5	27.3	35.3
Attention to politics				
Read national news at least once a week	41.1	37.6	44.9	64.0
Watch/listen to national news almost daily	39.6	40.7	38.4	78.1
Participation skills				
I could write a letter to a government office	93.4	91.9	94.9	95.3
I could make a statement at a public meeting	82.4	79.2	86.0	89.4
Political efficacy				
I understand politics or government	55.0	49.6	61.0	61.0
My family has a say in what government does	64.2	63.7	64.8	55.0
Tolerance of diversity				
People should be allowed to speak against religion or church	88.3	86.4	90.3	86.3
Controversial books could be kept in a public library	56.9	51.3	63.1	57.2

NOTE: Details may not add to 100.0 due to rounding.

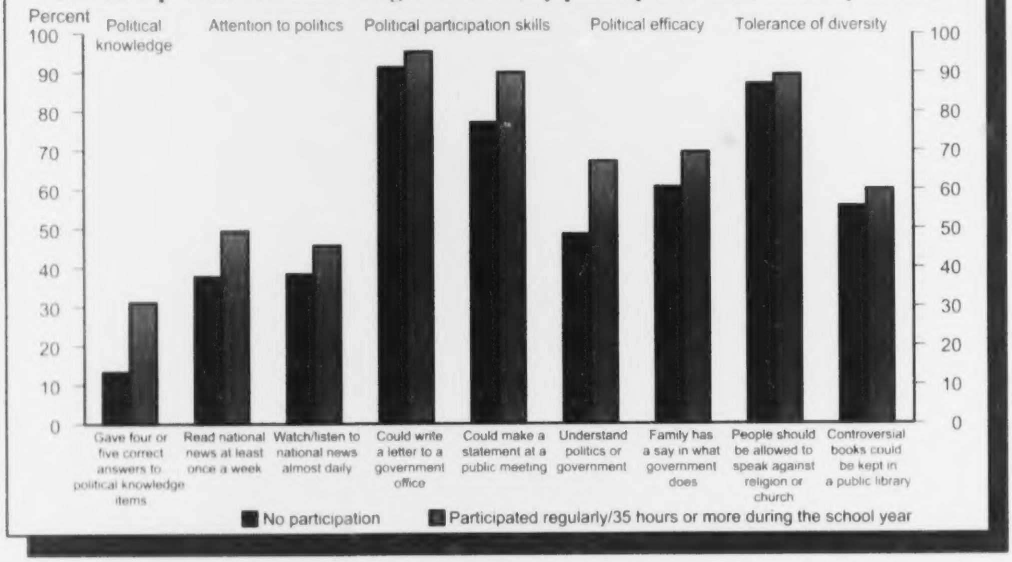
SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey, Spring 1996 (Youth Civic Involvement Component and Parent and Family Involvement in Education and Civic Involvement Component).

Citizenship skills

Citizenship skills of students in grades 9–12 and of their parents



Citizenship skills of students in grades 9–12, by participation in community service



SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey, Spring 1996 (Youth Civic Involvement Component and Parent and Family Involvement in Education and Civic Involvement Component).

Employment of noncollege youth

The transition from high school to work can be difficult. Without prior job experience or specialized training, school leavers may have difficulty finding jobs. Comparing the employment rates of high school completers with those of dropouts indicates the employment advantage noncollege high school completers have over high school dropouts.

- In 1997, 67 percent of recent high school completers not enrolled in college were employed, compared with 45 percent of recent high school dropouts.
- Since 1972, the employment rates for both recent high school completers not enrolled in college and recent high school dropouts have declined, on average, by approximately 0.3 percentage points per year. These declines were greater for males than for females (see supplemental table 10-1).
- Since 1972, the employment rates for black recent high school dropouts have been 25 percentage points lower than the rates for their white counterparts, on average. In 1997, the employment rate for black recent high school dropouts was 17 percent.
- Between 1960 and 1997, the gap in employment rates between male and female recent high school completers narrowed (see supplemental table 10-1).

Employment rates for recent high school completers not enrolled in college and for recent high school dropouts, by race–ethnicity: October 1972–97

	Recent high school completers not enrolled in college				Recent high school dropouts			
October	Total[1]	White	Black	Hispanic[2]	Total[1]	White	Black	Hispanic[2]
1972	70.1	73.5	48.3	(2)	46.8	47.0	42.8	(2)
1974	69.1	72.9	46.0	56.2	49.3	53.9	36.2	49.9
1976	68.8	73.1	38.6	65.3	44.8	49.6	20.9	52.7
1978	74.9	79.0	45.8	67.8	51.2	54.2	22.3	56.1
1980	68.9	74.6	34.7	62.3	44.6	51.2	20.9	52.2
1982	60.4	68.4	29.3	56.6	38.0	44.6	16.2	45.5
1984	64.0	70.7	44.8	55.4	44.0	51.4	24.2	41.0
1986	65.2	71.5	41.1	53.7	48.0	50.4	31.5	41.0
1988	71.9	78.2	55.8	53.6	43.6	47.6	17.6	44.7
1989	71.7	77.6	53.7	54.6	46.7	57.6	26.4	42.1
1990	67.8	75.0	45.2	56.3	46.3	56.3	30.9	39.9
1991	59.6	67.0	32.3	57.9	36.8	38.6	24.7	36.2
1992	62.7	71.9	37.0	53.2	36.2	43.1	—	41.4
1993	64.2	71.8	42.3	47.7	46.9	52.6	27.1	34.5
1994	64.2	73.1	38.0	43.7	42.9	51.7	34.1	41.2
1995	63.1	71.4	51.5	43.0	47.7	51.6	33.5	43.9
1996	59.0	68.5	41.7	45.1	42.3	45.3	21.5	54.5
1997	66.9	73.8	53.3	(2)	44.9	48.8	17.4	(2)

— Too few sample observations for a reliable estimate.

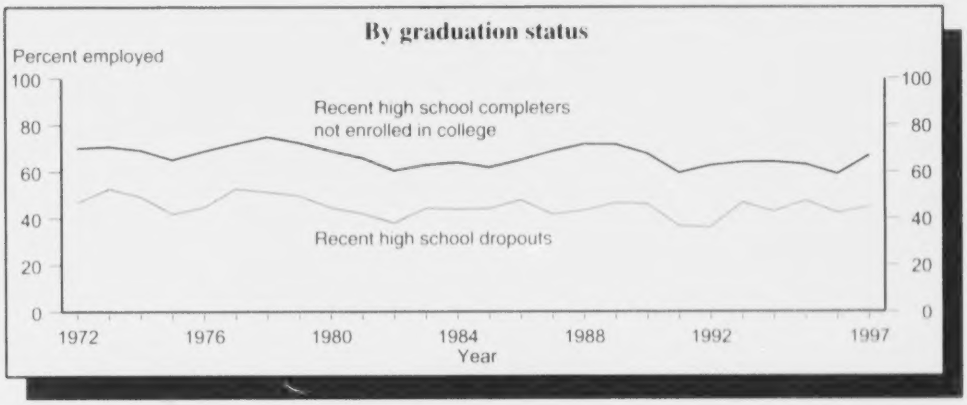
[1] Included in the totals but not shown separately are members of other racial–ethnic groups.

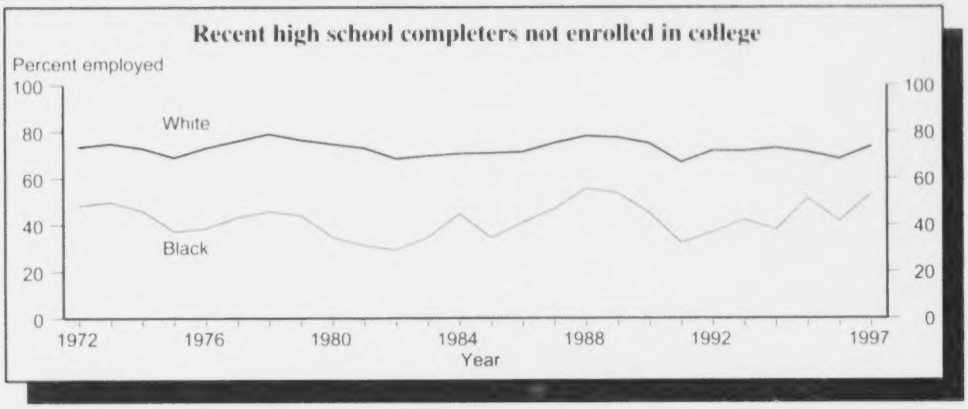
[2] Due to the small sample sizes for the Hispanic category, 3-year averages were calculated. For example, the 3-year average for 1996 is the average percentage of recent high school completers not enrolled in college or recent school dropouts in 1995, 1996, and 1997. Thus, 3-year averages cannot be calculated for 1972 and 1997.

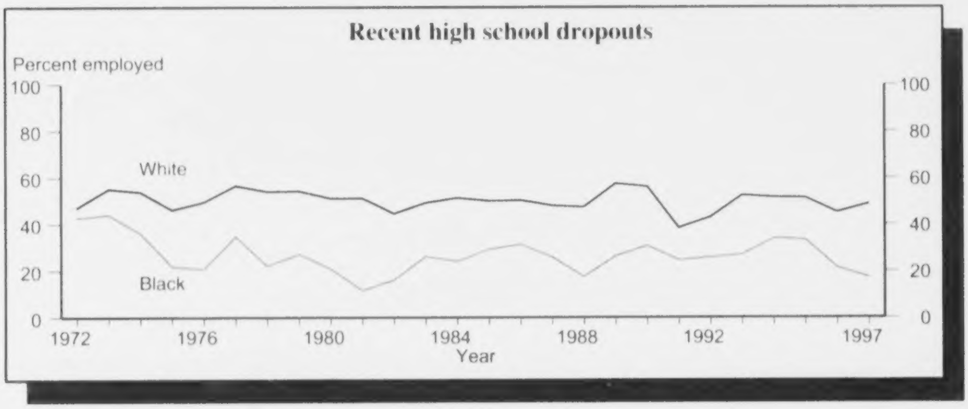
NOTE: Recent high school completers are individuals ages 16–24 who completed high school during the survey year. Recent high school dropouts are individuals ages 16–24 who had not completed high school, were not enrolled during the survey month, and were in school 12 months earlier. In 1994, the survey instrument for the Current Population Survey (CPS) was changed and weights were adjusted. See the supplemental note to *Indicator 51* for further discussion.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Employment rates for recent high school completers not enrolled in college and for recent school dropouts: October 1972–97







NOTE: Recent high school completers are individuals ages 16–24 who completed high school during the survey year. Recent high school dropouts are individuals ages 16–24 who had not completed high school, were not enrolled during the survey month, and were in school 12 months earlier. In 1994, the survey instrument for the CPS was changed and weights were adjusted. In 1992, there were too few sample observations for a reliable estimate of black recent school dropouts. See the supplemental note to *Indicator 51* for further discussion.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Employment of young adults, by educational attainment

Many factors affect employment rates among adults. Some factors influence the willingness of employers to offer jobs to individuals with different levels of education at the going wage rate, whereas others influence the willingness of individuals to take jobs at this wage rate. The percentage of young adults who are employed is an indication of both the skill levels required by employers and the advantages employment offers to individuals relative to other pursuits.

- The employment rate of male and female 25- to 34-year-olds was generally higher among those individuals with a higher level of education between 1971 and 1998. For example, in 1998, males and females ages 25–34 with a bachelor's degree or higher were more likely to be employed than their peers who had lower levels of educational attainment.
- Between 1971 and 1998, the employment rate of males ages 25–34 decreased for those who had not finished high school and those with a high school diploma or GED, and remained relatively constant for those with some college and those with a bachelor's degree or higher.
- Between 1971 and 1998, the employment rate of females ages 25–34 increased across all education levels. However, the rate of increase for females who did not complete high school was lower than the rate of increase for females who attained higher levels of education.

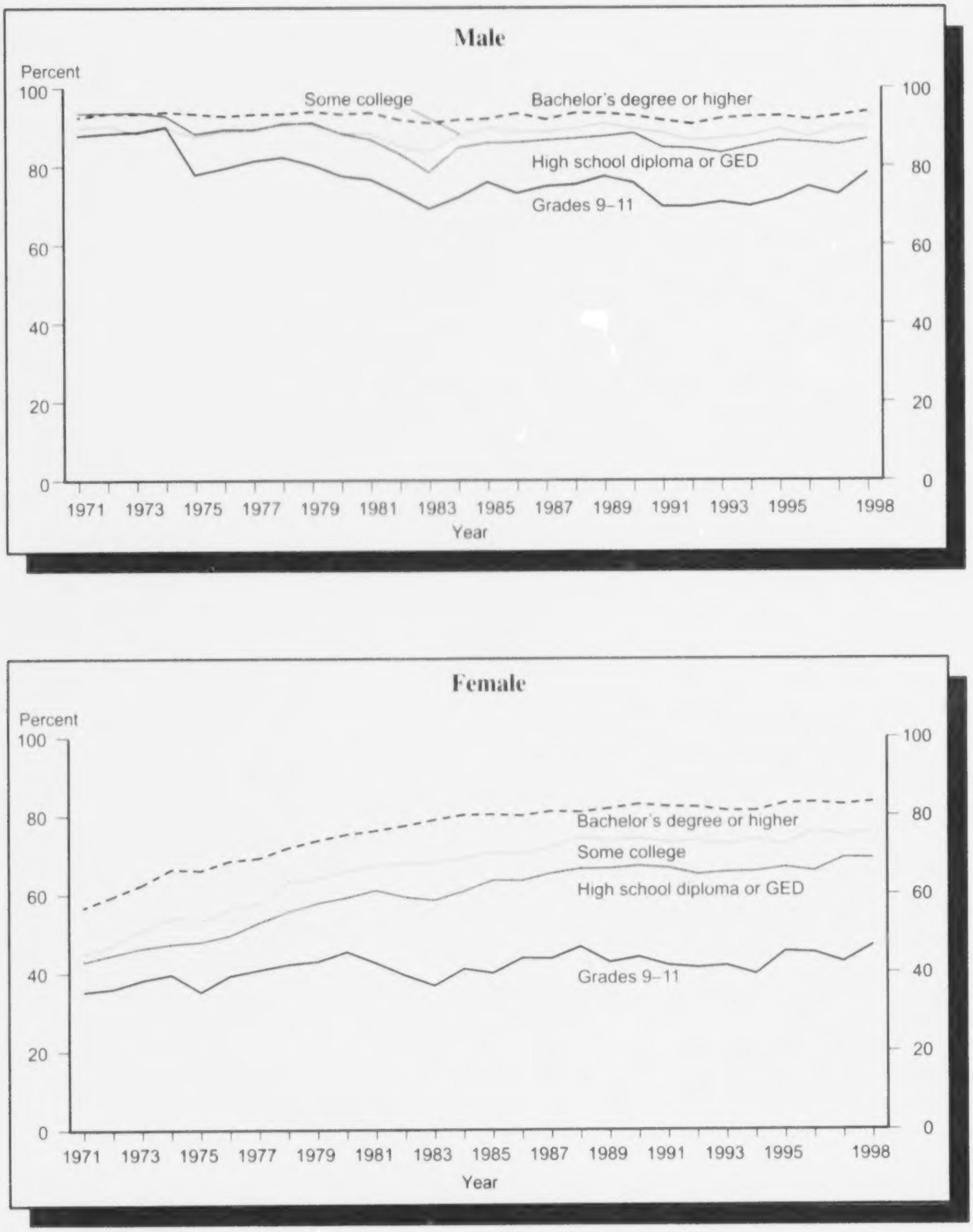
Employment rate of 25- to 34-year-olds, by sex and educational attainment: March 1971–98

	Male				Female			
March	Grades 9–11	High school diploma or GED	Some college	Bachelor's degree or higher	Grades 9–11	High school diploma or GED	Some college	Bachelor's degree or higher
1971	87.9	93.6	89.9	92.5	35.4	43.1	44.9	56.9
1973	88.8	93.8	88.5	93.5	38.4	46.5	51.0	62.7
1975	78.0	88.4	87.7	93.5	35.4	48.1	53.6	66.3
1977	81.5	89.5	89.1	93.3	41.0	53.0	58.0	69.5
1979	80.5	91.3	90.9	94.1	43.2	58.0	64.2	74.0
1981	76.7	86.9	88.5	93.7	42.7	61.3	67.6	76.4
1983	69.3	78.6	83.8	91.1	37.1	58.8	68.3	79.2
1985	76.1	86.1	89.7	92.2	40.3	63.9	71.0	80.6
1987	75.0	86.8	89.0	92.1	44.0	65.6	72.2	81.4
1989	77.6	87.8	91.1	93.7	43.0	66.9	74.0	82.1
1990	76.0	88.6	89.7	93.0	44.4	67.5	74.5	83.2
1991	69.9	84.9	88.6	91.8	42.3	67.0	73.5	82.6
1992	69.9	84.7	86.7	90.9	41.7	65.4	74.0	82.5
1993	71.0	83.6	87.2	92.3	42.2	66.0	73.0	81.6
1994	70.0	85.2	88.0	92.8	40.1	66.2	74.3	81.6
1995	71.8	86.6	89.6	92.9	45.8	67.2	73.0	83.4
1996	74.9	86.3	87.6	92.1	45.5	66.3	76.4	83.7
1997	73.0	85.6	90.0	93.0	43.1	69.6	75.3	83.1
1998	78.5	87.0	90.1	94.0	47.3	69.5	76.2	83.8

NOTE: The Current Population Survey (CPS) questions used to obtain educational attainment were changed in 1992. See the supplemental note to *Indicator 59* for further discussion. The employment rate represents the number of employed individuals as a percentage of the total population.

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

Employment rate of 25- to 34-year-olds, by sex and educational attainment: March 1971–98



NOTE: The Current Population Survey (CPS) questions used to obtain educational attainment were changed in 1992. See the supplemental note to *Indicator 59* for further discussion. The employment rate represents the number of employed individuals as a percentage of the total population.

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

Annual earnings of young adults, by educational attainment

Many factors influence wages and salaries, including employer's perceptions of the productivity and availability of workers with different levels of education and prevailing economic conditions. The ratio of annual earnings of high school dropouts or college graduates to the annual earnings of high school completers measures the earnings disadvantage of not finishing high school and the earnings advantage of completing college.

- In 1997, the median annual earnings of young adults ages 25–34 who had not completed high school were substantially lower than those of their counterparts who had done so (29 and 37 percent lower for males and females, respectively). Young adults who had completed a bachelor's degree or higher earned substantially more than those who had earned no more than a high school diploma or GED (50 and 91 percent more for males and females, respectively).

- Between 1980 and 1997, the earnings of those with a bachelor's degree or higher rose faster than the earnings of those who had completed only high school for both both males and females.

- Gaps in earnings between males and females decline with increasing levels of education: as educational attainment increases, the ratio of median annual earnings of male to female wage and salary workers decreases. However, the association between education and the male / female earnings gap has lessened over time. That is, earnings of women achieved greater parity with the earnings of men in recent years, regardless of level of educational attainment (see supplemental table 12-1).

Ratio[1] of median annual earnings of all wage and salary workers ages 25–34 whose highest education level was grades 9–11, some college, or a bachelor's degree or higher, compared with those with a high school diploma or GED, by sex: 1970–97

	Grades 9–11		Some college		Bachelor's degree or higher	
Year	Male	Female	Male	Female	Male	Female
1970[2]	0.83	0.59	1.09	1.20	1.24	1.82
1972[2]	0.79	0.63	1.01	1.18	1.18	1.79
1974	0.81	0.62	1.02	1.19	1.14	1.74
1976	0.78	0.61	1.03	1.14	1.19	1.58
1978	0.77	0.54	1.05	1.17	1.18	1.55
1980	0.73	0.65	1.04	1.24	1.19	1.52
1982	0.71	0.66	1.12	1.21	1.34	1.63
1984	0.63	0.56	1.15	1.21	1.36	1.61
1986	0.69	0.65	1.18	1.21	1.50	1.78
1988	0.68	0.56	1.10	1.31	1.42	1.81
1990	0.71	0.58	1.14	1.34	1.48	1.92
1991	0.64	0.64	1.14	1.32	1.53	1.90
1992	0.68	0.76	1.13	1.34	1.60	2.00
1993	0.67	0.59	1.12	1.31	1.57	1.99
1994[2]	0.67	0.58	1.14	1.20	1.52	1.86
1995[2]	0.74	0.61	1.11	1.28	1.55	1.91
1996[2]	0.69	0.64	1.14	1.27	1.56	1.88
1997	0.71	0.63	1.11	1.22	1.50	1.91

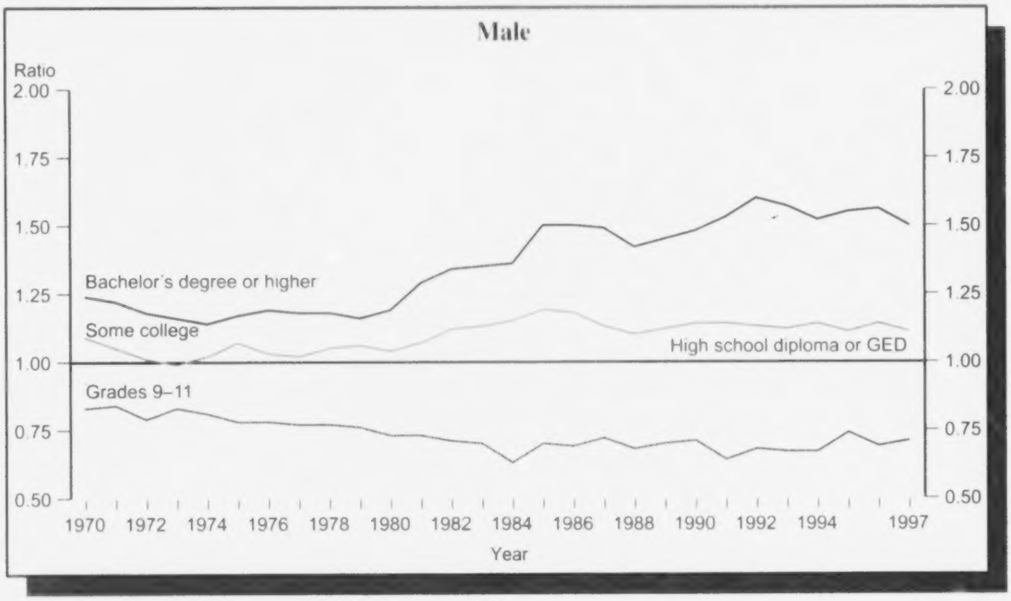
[1] This ratio is most useful when compared with 1.0. For example, the ratio of 1.50 in 1997 for males whose highest education level was a bachelor's degree or higher means that they earned 50 percent more than males who had a high school diploma or GED. The ratio of 0.71 in 1997 for males whose highest education level was grades 9–11 means that they earned 29 percent less than males who had a high school diploma or GED.

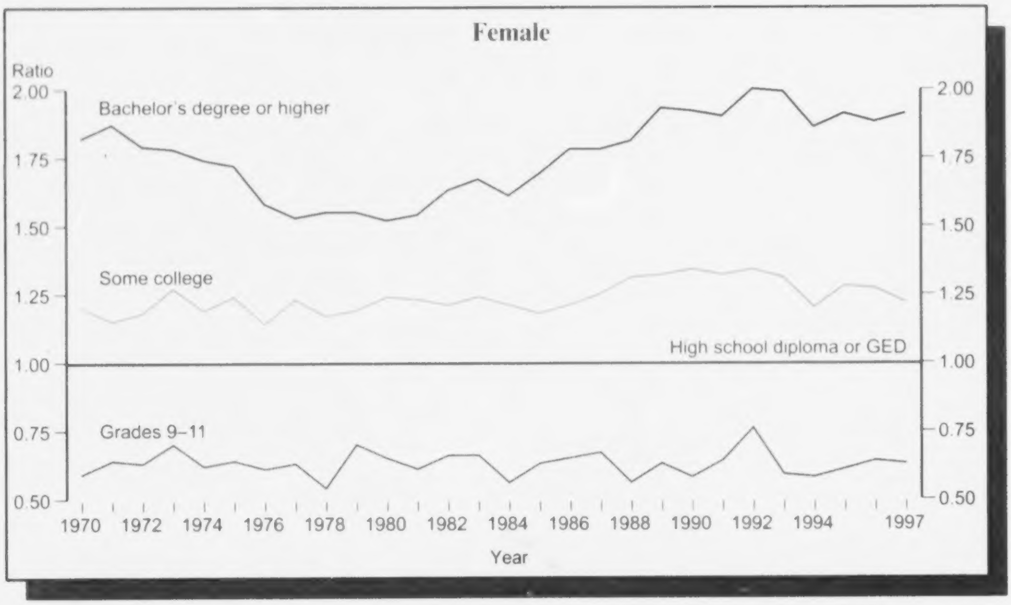
[2] Data revised from previously published figures.

NOTE: The Current Population Survey (CPS) questions used to obtain educational attainment were changed in 1992. See the supplemental note to *Indicator 59* for further discussion. In 1994, the survey instrument for the CPS was changed and weights were adjusted. See the supplemental note to *Indicator 51* for further discussion.

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

Ratio* of median annual earnings of all wage and salary workers ages 25–34 whose highest education level was grades 9–11, some college, or a bachelor's degree or higher, compared with those with a high school diploma or GED, by sex: 1970–97





* This ratio is most useful when compared with 1.0. For example, the ratio of 1.50 in 1997 for males whose highest education level was a bachelor's degree or higher means that they earned 50 percent more than males who had a high school diploma or GED. The ratio of 0.71 in 1997 for males whose highest education level was grades 9–11 means that they earned 29 percent less than males who had a high school diploma or GED. Data for 1994, 1995, and 1996 are revised from previously published figures.

NOTE: The Current Population Survey (CPS) questions used to obtain educational attainment were changed in 1992. See the supplemental note to *Indicator 59* for further discussion. In 1994, the survey instrument for the CPS was changed and weights were adjusted. See the supplemental note to *Indicator 51* for further discussion.

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

Educational outcomes and employment status 4 years after college graduation

Some bachelor's degree recipients go directly into the labor force, while others pursue further education, often combining school and work. A snapshot of labor market status and educational outcomes of college graduates 4 years after graduation illustrates graduates' paths to employment and further schooling. It also provides an opportunity to see the extent to which these paths are related to borrowing for undergraduate education.

- In 1997, the majority (79 percent) of 1992–93 graduates were neither enrolled in an advanced degree program nor had attained an advanced degree. Ten percent had attained an advanced degree and were not enrolled in school; another 10 percent were enrolled and had not attained an advanced degree; and 1 percent were enrolled and had attained an advanced degree.
- College graduates with parents who had an advanced degree were more likely than students whose parents had a bachelor's degree or less to have attained an advanced degree or to be enrolled in school in 1997.
- Graduates who used federal loans to finance their undergraduate education were slightly less likely than those who had not used these loans to have attained an advanced degree or to be enrolled in school in 1997.
- By 1997, most 1992–93 bachelor's degree recipients were employed: 76 percent were working and not enrolled in school and another 13 percent were combining school and work. Five percent were enrolled but not working, and 6 percent were neither working nor enrolled (see supplemental table 13-1).

Percentage distribution of 1992–93 bachelor's degree recipients* according to enrollment status in April 1997, by parents' educational attainment and undergraduate borrowing status

Parents' educational attainment and undergraduate borrowing status	No advanced degree, not enrolled	Attained advanced degree or currently enrolled			
		Total	No advanced degree, enrolled	Attained, not enrolled	Attained and enrolled
Total	**78.9**	**21.1**	**9.5**	**10.2**	**1.4**
Parents' educational attainment					
Less than high school	84.9	15.1	5.4	8.6	1.1
High school diploma or equivalency credential	84.0	16.0	7.6	7.7	0.7
Some postsecondary education	81.6	18.4	7.3	9.8	1.3
Bachelor's degree	78.3	21.7	10.8	9.5	1.4
Advanced degree	70.6	29.4	12.4	14.7	2.3
Undergraduate borrowing status (federal loans)					
Did not borrow	78.0	22.0	9.8	10.6	1.6
Borrowed	80.8	19.2	9.1	9.0	1.1
Less than $1,000	77.8	22.2	17.4	3.9	0.9
$1,000–4,999	81.1	18.9	8.9	8.8	1.2
$5,000–9,999	82.1	17.9	8.2	9.0	0.7
$10,000–19,999	80.3	19.7	9.4	9.1	1.2
$20,000 or more	77.3	22.7	7.0	13.1	2.6

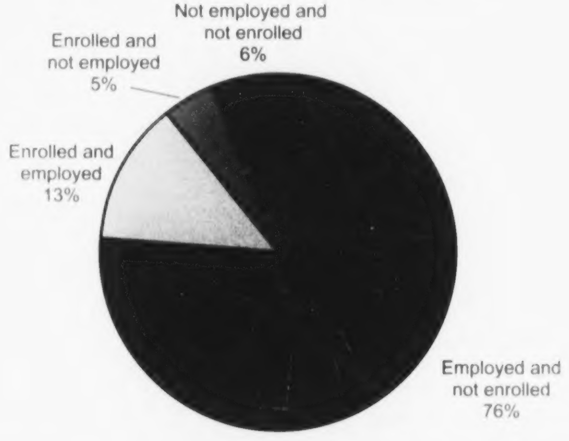
* Bachelor's degrees were earned between July 1992 and June 1993.

NOTE: Details may not add to 100.0 due to rounding.

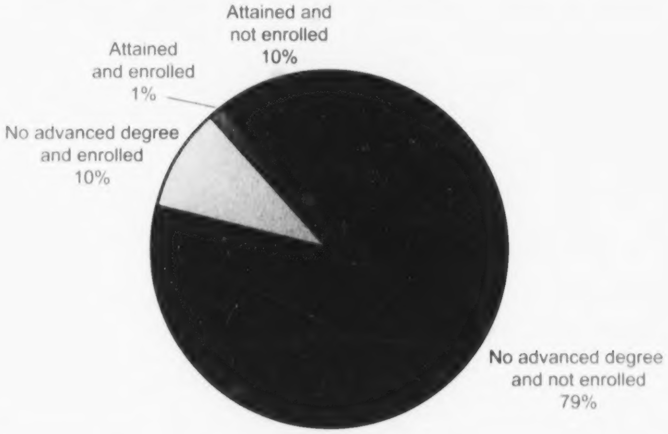
SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 Baccalaureate and Beyond Longitudinal Study, Second Follow-up (B&B 93/97), Data Analysis System.

Employment and enrollment among 1992–93 bachelor's degree recipients* in April 1997

Percentage distribution of graduates' employment and enrollment status in April 1997



Percentage distribution of 1992–93 bachelor's degree recipients according to advanced degree attainment and enrollment status: 1997



* Bachelor's degrees were earned between July 1992 and June 1993.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 Baccalaureate and Beyond Longitudinal Study, Second Follow-up (B&B:93/97), Data Analysis System.

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Section II. Quality of Education Environments (Elementary/Secondary)

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Students who took Advanced Placement (AP) examinations

The Advanced Placement (AP) program is associated with a demanding academic curriculum and illustrates the desire of high schools to offer college-level courses to high school students. By participating in the AP program, high school students may acquire college credit for their knowledge of college-level subjects. The number of students per 1,000 12th-graders who participated in AP examinations each year shows the level of importance that students, schools, and colleges place on the AP program and how that importance has changed over time.

- Between 1984 and 1997, the number of students who took AP examinations increased dramatically, rising from 50 to 131 students per 1,000 12th-graders. The number of examinees increased for both sexes and all racial–ethnic groups during this period.
- In 1984, equal proportions of male and female students took AP examinations. Between 1984 and 1997, the number of females who took the examinations rose at a faster rate than did the number of males who took the examinations. In 1997, 145 females compared with 117 males per 1,000 12th-graders took AP examinations.
- In 1997, whites were more likely than blacks or Hispanics to take AP examinations in all subject areas, with the exception of foreign languages. Hispanics were at least three times as likely to take a foreign language AP examination as whites.

Number of U.S. students[1] who took AP examinations (per 1,000 12th-graders), by sex and race–ethnicity: 1984–97

Sex and race–ethnicity	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Total[2]	**50**	**59**	**64**	**66**	**81**	**88**	**100**	**103**	**109**	**117**	**115**	**125**	**131**	**131**
Sex														
Male	50	61	65	68	76	86	101	96	102	108	101	111	117	117
Female	50	58	63	65	85	90	98	111	117	127	129	140	144	145
Race–ethnicity														
White	48	60	62	63	82	92	103	107	112	115	116	125	133	132
Black	8	11	12	13	21	20	26	25	26	31	32	37	32	37
Hispanic	24	21	27	30	48	54	54	67	68	80	63	75	74	85

Number of AP examinations[1] taken in the United States and the number of examinations with scores of 3 or higher (per 1,000 12th-graders), by subject area, sex, and race–ethnicity: 1997

	Number of AP examinations taken						Number of examinations with scores of 3 or higher					
Sex and race–ethnicity	Social studies	English	Foreign language	Calculus	Computer science	Science	Social studies	English	Foreign language	Calculus	Computer science	Science
Total[2]	**59**	**55**	**17**	**33**	**3**	**35**	**35**	**38**	**12**	**20**	**1**	**23**
Sex[3]												
Male	62	42	13	36	5	41	40	28	9	24	3	28
Female	70	70	23	30	1	34	40	48	17	17	0	20
Race–ethnicity												
White	61	58	12	33	2	34	38	41	7	21	1	22
Black	15	17	3	7	1	8	5	6	1	2	0	2
Hispanic	26	27	41	12	1	12	11	12	36	6	0	5

[1] Includes all participation by 11th- and 12th-graders. See the supplemental note to this indicator for further discussion.

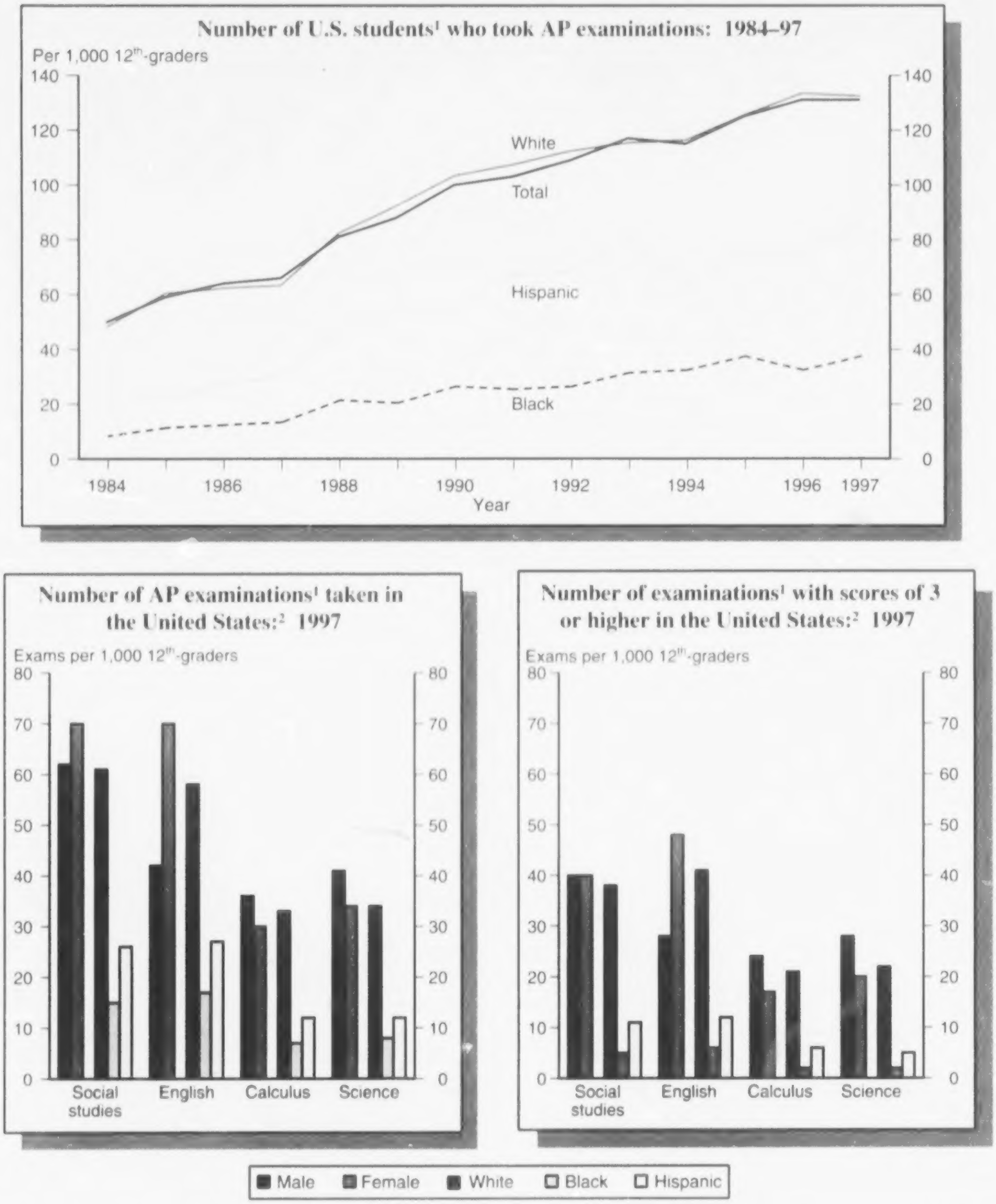
[2] Included in the total but not shown separately are students from other racial–ethnic groups.

[3] The number of examinations taken by males and females includes a small number of examinations taken by 9th-graders, 10th-graders, college students, and others (9 percent of all students who took AP examinations in 1997).

NOTE: Included in this analysis are students who participated in the United States only. Students scoring 3 or higher on an AP examination usually receive college credit. Since, on average, AP candidates take more than one examination, there is not a 1:1 ratio between candidates and examinations. See the supplemental note to this indicator for a description of AP course categories and a discussion of the calculations for this analysis.

SOURCE: The College Board, Advanced Placement Program, *National Summary Reports* (Copyright © 1984–97 by the College Entrance Examination Board. All rights reserved.). U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Students who took Advanced Placement (AP) examinations


Number of U.S. students[1] who took AP examinations: 1984–97

Number of AP examinations[1] taken in the United States:[2] 1997

Number of examinations[1] with scores of 3 or higher in the United States:[2] 1997

---

[1] Includes all participation by 11th- and 12th-graders. See the supplemental note to this indicator for further explanation.

[2] The number of examinations taken by males and females includes a small number of examinations taken by 9th-graders, 10th-graders, college students, and others (9 percent of all students who took AP examinations in 1997).

NOTE: Included in this analysis are students who participated in the United States only. Students scoring 3 or higher on an AP examination usually receive college credit. Since, on average, AP candidates take more than one examination, there is not a 1:1 ratio between candidates and examinations. See the supplemental note to this indicator for a description of AP course categories and an explanation of the calculations for this analysis.

SOURCE: The College Board, Advanced Placement Program, *National Summary Reports* (Copyright © 1984–97 by the College Entrance Examination Board. All rights reserved.). U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Teachers' use of higher-level tasks in instruction

Given the complexity and pace of technological advancement in recent decades, educational goals have expanded from mastery of basic skills to developing higher-level thinking skills. Information about the extent to which teachers assign students activities designed to help them develop higher-level thinking skills in the classroom or as homework indicates how widely these instructional practices have been adopted.

- In 1994–95, more than one-half of K–12 teachers reported that their students engaged in specific activities designed to promote higher-level thinking skills in class at least weekly. Such activities included having students explain how what they had learned in class related to the real world (64 percent), solving problems with several answers (59 percent), and working on problems with several methods of solution (59 percent). Thirty-eight percent of teachers reported that they had students in their classes put things in order and then explain why they were organized that way.

- Teachers were generally less likely to ask students to engage in activities designed to promote higher-level thinking skills in their homework than in the classroom. On a weekly basis, 13 percent of teachers had students work at home on problems with no obvious solution; 23 percent assigned projects or experiments as homework; and 43 percent assigned tasks that required students to apply concepts in a new context.

- As the class ability level increased, teachers became more likely to ask their students to engage in various higher-level tasks in their homework, such as conducting a project or experiment, working on problems with no obvious solutions, and applying concepts in a new context. However, in class, the likelihood of teachers' use of various higher-level tasks was unrelated to the abilities of the students they taught except for one type of task—working on problems with several solution methods—in which the likelihood of teachers' use of this type of task rose with an increased level of class ability.

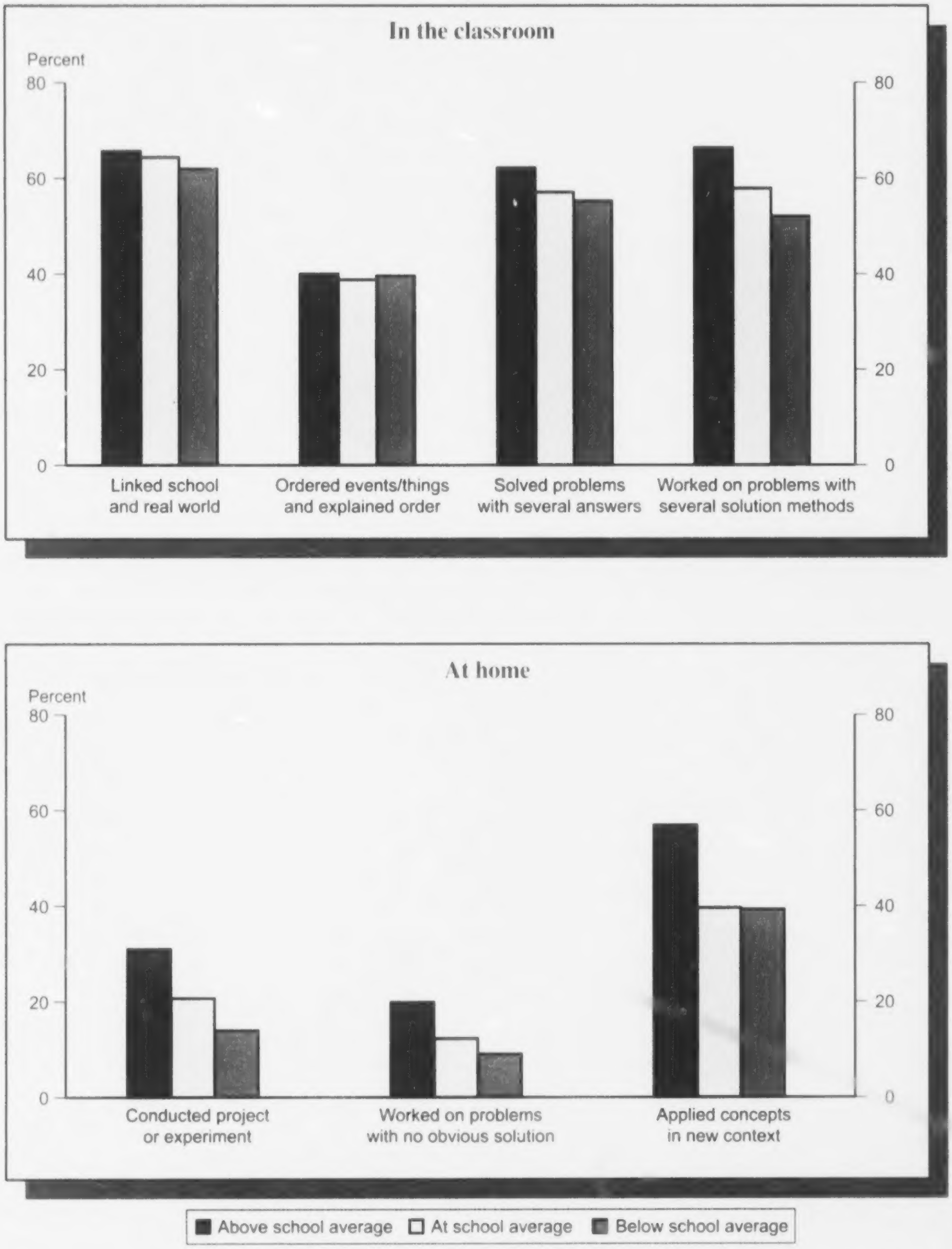
Percentage of K–12 teachers whose students engaged in various higher-level tasks in class or as homework at least once a week during the last semester, by class ability level:* 1994–95

	Tasks done in class				Tasks done as homework		
Class ability level	Linked school and real world	Ordered events/ things and explained order	Solved problems with several answers	Worked on problems with several solution methods	Conducted project or experiment	Worked on problems with no obvious solution	Applied concepts in new context
Total	**63.7**	**38.1**	**59.1**	**58.8**	**22.8**	**13.2**	**43.2**
Above school average	65.7	40.0	62.2	66.4	31.0	19.9	56.9
At school average	64.4	38.8	57.1	57.9	20.7	12.3	39.6
Below school average	62.0	39.6	55.3	52.1	14.0	9.1	39.3
Mixed	66.6	37.4	63.1	62.6	26.4	14.6	45.8

* Class ability level was derived from teachers' estimates of the proportion of students in the designated class whose academic ability was above, at, or below the school average for their age and grade. Teachers were defined as having classes of above, at, or below average ability if they reported that more than 50 percent of their students fell into the respective category. If a majority of students did not fall into any of these categories, teachers were defined as having "mixed" classes.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Teacher Follow-up Survey, 1994–95.

Percentage of teachers whose students engaged in various higher-level tasks at least once a week during the last semester, by class ability level:* 1994–95



* Class ability level was derived from teachers' estimates of the proportion of students in the designated class whose academic ability was above, at, or below the school average for their age and grade. Teachers were defined as having classes of above, at, or below average ability if they reported that more than 50 percent of their students fell into the respective category. If a majority of students did not fall into any of these categories, teachers were defined as having "mixed" classes.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Teacher Follow-up Survey, 1994–95.

International comparisons of instructional activities in mathematics

In recent years, many education program evaluations and teacher training programs have focused on instructional methods that teachers use in the classroom. For example, some teachers ask their students to conduct repetitive practice exercises; others ask their students to do reasoning tasks; still others apply content to everyday problems; and many use some combination of all of these methods. Data from the Third International Mathematics and Science Study (TIMSS) show not only that student achievement varies across countries but also that instructional methods vary as well. Examining how teachers from various countries differ in how they teach may provide insight into factors that are associated with student achievement.

- In 1995, mathematics teachers in the United States were more likely to report that their 8th-grade students practiced computational skills "in every lesson" than mathematics teachers in England, France, and Germany. However, mathematics teachers in the United States were just as likely as their counterparts in Japan, Canada, France, and Germany, and more likely than mathematics teachers in England, to report that their students did reasoning tasks "in every lesson."

- Mathematics teachers in the United States also differ from their international peers in the frequency with which they assess their students in mathematics classes. For example, 8th-grade students in the United States were more likely to report they took quizzes or tests "pretty often" or "almost always" in mathematics lessons than their counterparts in Canada, England, France, Germany, and Japan (see supplemental table 16-1).

- Teachers rely on a variety of sources when deciding which topics to teach. In 1995, 64 percent of 8th-grade students in the United States had mathematics teachers who reported that they relied on curriculum guides as their main source of information, compared with 30 percent relying on textbooks and 6 percent on examination specifications. In Japan, the majority of 8th-grade students (74 percent) had mathematics teachers who reported that they relied on textbooks to decide which topics to teach. In Germany, most students (80 percent) had mathematics teachers who reported using curriculum guides (see supplemental table 16-2).

Percentage distribution of 8th-grade students[1] according to frequency with which teachers reported asking them to practice computational skills and do reasoning tasks in mathematics, by G-7[2] country: 1995

	Practice computational skills				Do reasoning tasks			
Country	Never or almost never	Some lessons	Most lessons	Every lesson	Never or almost never	Some lessons	Most lessons	Every lesson
Canada	4	36	42	18	0	19	62	19
England[4]	7	52	34	8	0	25	60	14
France	6	44	44	7	0	32	48	20
Germany[3,4]	17	51	25	7	1	24	58	17
Japan	—	—	—	—	0	7	55	37
United States[5]	11	31	38	21	0	24	50	26

— Not available.

[1] Eighth grade in most nations.

[2] Italy was not included because it was unable to complete the steps necessary for its data to be published.

[3] Country did not satisfy one or more sampling or other guidelines. See the supplemental note to *Indicator 3* for further explanation.

[4] Teacher response data are available for 50–69 percent of students.

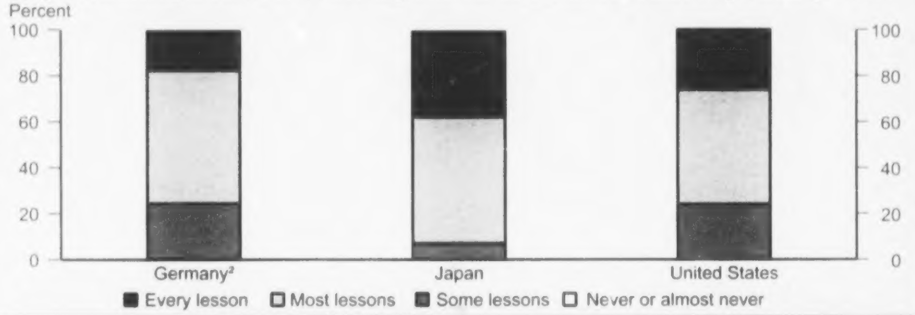
[5] Teacher response data are available for 70–84 percent of students.

NOTE: Details may not add to 100 due to rounding.

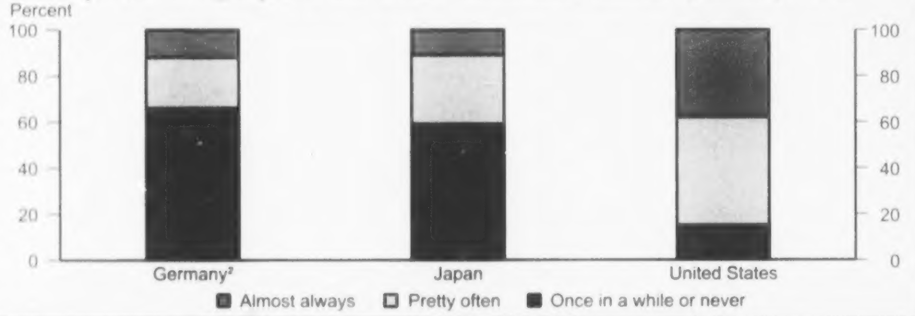
SOURCE: International Association for the Evaluation of Educational Achievement, TIMSS International Study Center, *Mathematics Achievement in the Middle School Years*, 1996.

International comparisons of instructional activities in mathematics

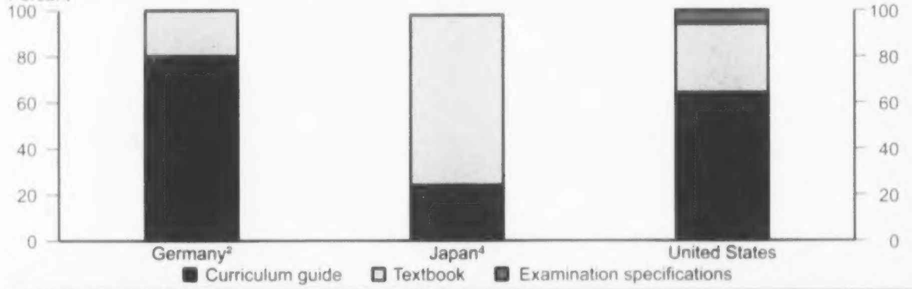
Percentage distribution of 8th-grade students[1] according to frequency with which teachers reported asking them to do reasoning tasks in mathematics classes, by country: 1995



Percentage distribution of 8th-grade students[1] according to frequency with which they reported having a quiz or test in their mathematics lessons, by country: 1995



Percentage distribution of 8th-grade students[1] according to teacher reports of the use of various pieces of written information[3] as their main source for deciding which topics to teach in mathematics, by country: 1995



[1] Eighth grade in most nations.

[2] Country did not satisfy one or more sampling or other guidelines. See the supplemental note to *Indicator 3* for further explanation.

[3] Curriculum guides include national, regional, and school curriculum guides; textbooks include teacher and student editions as well as other resource books; and examination specifications include national and regional levels.

[4] Percentage for examination specifications for Japan is 1 percent, therefore the percentage is not discernable in the graph.

SOURCE: International Association for the Evaluation of Educational Achievement, TIMSS International Study Center, *Mathematics Achievement in the Middle School Years*, 1996.

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Internet access in public and private schools

The Internet, with its vast array of information, can broaden the learning resources available in schools by providing teachers and students with connections to libraries, schools, and government agencies. Information found on the Internet can broaden students' knowledge base, and Internet access can prepare students for an increasingly technological workplace. Examining patterns of Internet access in schools can help determine how many students will be prepared to use this technology effectively in the future.

- Between fall 1994 and fall 1998, Internet access in public schools increased from 35 to 89 percent of schools. The percentage of public school instructional rooms with Internet access also increased during this time period (from 3 percent in 1994 to 51 percent in 1998).

- Public schools with a high student poverty level (71 percent or more of students eligible for free or reduced-price lunch) were less likely to have Internet access than schools with a low student poverty level (less than 11 percent of students eligible for free or reduced-price lunch) from fall 1994 to 1997. However, in fall 1998, high poverty-level public schools were as likely to have Internet access as low poverty-level schools.

- In fall 1997, public schools with a high minority enrollment (50 percent or more) had a lower rate of Internet access than public schools with a low minority enrollment (less than 6 percent), and had a smaller percentage of instructional rooms with Internet access than public schools with a low minority enrollment. By fall 1998, the gap between high and low minority enrollment schools with Internet access closed, but high minority enrollment schools were still less likely to have instructional rooms with Internet access.

- In both public and private schools with Internet access, teachers were more likely to have access to e-mail, news groups, resource location services, and the World Wide Web than were students in these schools (see supplemental tables 17-2 and 17-3).

Percentage of public schools and instructional rooms with Internet access, by school characteristics: Fall 1994–98

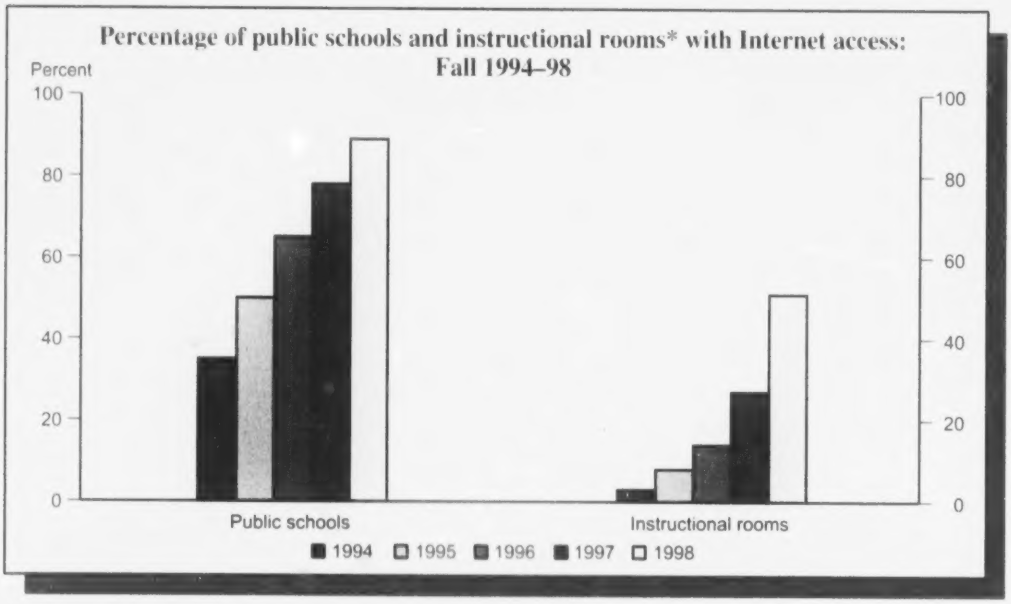
	Percentage of schools with Internet access					Percentage of instructional rooms with Internet access[1]				
School characteristics	1994	1995	1996	1997	1998	1994	1995	1996	1997	1998
Total	**35**	**50**	**65**	**78**	**89**	**3**	**8**	**14**	**27**	**51**
Level of school[2]										
Elementary	30	46	61	75	88	3	8	13	24	51
Secondary	49	65	77	89	94	4	8	16	32	52
Percentage of students eligible for free or reduced-price lunch										
Less than 11	40	62	78	88	87	4	9	18	36	62
11–30	39	59	72	83	94	4	10	16	32	53
31–70	33	47	58	78	91	3	7	14	27	52
71 or more	19	31	53	63	80	2	3	7	14	39
Percentage of minority students enrolled										
Less than 6	38	52	65	84	91	6	9	18	37	57
6–20	38	58	72	87	93	4	10	18	35	59
21–49	38	54	65	73	91	4	9	12	22	52
50 or more	27	40	56	63	82	3	3	5	13	37

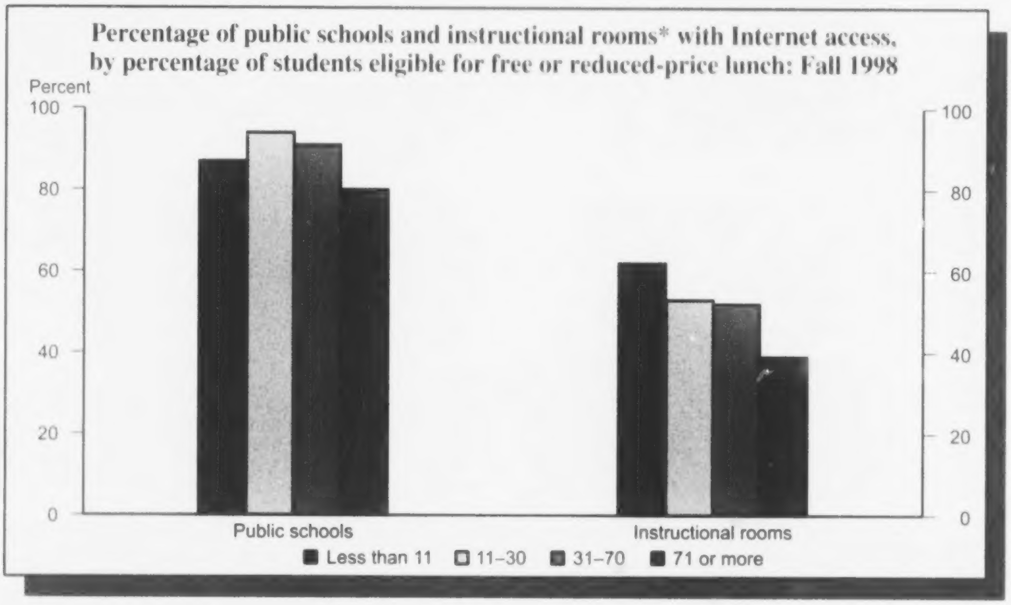
[1] Based on the total number of instructional rooms in regular public schools.

[2] Data for combined schools are not reported as a separate level of school because there are too few sample observations for a reliable estimate. Included in the totals are data for combined schools.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Internet Access in Public Schools," Issue Brief, February 1998, and "Internet Access in Public Schools, 1994–1998," Issue Brief, February 1999.

Internet access in public schools


Percentage of public schools and instructional rooms* with Internet access: Fall 1994–98


Percentage of public schools and instructional rooms* with Internet access, by percentage of students eligible for free or reduced-price lunch: Fall 1998

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* Based on the total number of instructional rooms in regular public schools.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Internet Access in Public Schools," Issue Brief, February 1998, and "Internet Access in Public Schools, 1994–1998," Issue Brief, February 1999.

Student computer use

Computers have become an essential tool in our society. Early exposure to computers can help students gain the computer literacy that will be crucial for future success in the workplace. Access to computers allows students to retrieve information, manipulate data, and produce results efficiently and in innovative ways. Examining the extent to which students have access to computers at home and at school may be an indicator of how well prepared students will be to enter an increasingly technological workplace.

- The percentage of students who used a computer at home was higher in 1997 than in 1984 (45 versus 13 percent). In addition, the percentage of students who used a computer at school was also higher in 1997 than in 1984 (76 versus 30 percent).
- The percentage of white, black, and Hispanic students in grades 1–6 and 7–12 who used a computer at school and at home was higher in 1997 than in 1984. For example, 18 and 19 percent of black and Hispanic 1st- through 6th-graders, respectively, used a computer at school in 1984, compared with 73 and 71 percent of their black and Hispanic peers, respectively, in 1997.
- Between 1984 and 1997, white students in grades 1–6 and 7–12 were consistently more likely than their black and Hispanic peers to use a computer at school or at home. However, when computer use by students was broken out by location of use, there was similar computer use by blacks and whites in grades 7–12 at school but not at home in 1997.
- In 1997, students in grades 1–6 and 7–12 were more likely to use computers at home for school assignments or word processing than for graphics/design, Internet, or e-mail access (see supplemental table 18-1).

Percentage of students who used a computer at school and/or home, by current grade level, race–ethnicity, and family income: 1984, 1989, 1993, and 1997

Current grade level, race–ethnicity, and family income[2]	1984[1]			1989[1]			1993[1]			1997		
	Used a computer at:			Used a computer at:			Used a computer at:			Used a computer at:		
	School	Home	Home or school	School	Home	Home or school	School	Home	Home or school	School	Home	Home or school
Total (Grades 1–12)	**29.7**	**12.6**	**36.2**	**48.0**	**18.4**	**54.6**	**62.0**	**25.2**	**68.3**	**76.4**	**45.2**	**84.0**
Grades 1–6												
Total	**30.5**	**11.8**	**36.2**	**52.4**	**16.1**	**56.9**	**66.6**	**23.0**	**70.7**	**79.1**	**41.3**	**83.8**
Race–ethnicity												
White	35.5	14.4	42.3	58.9	20.4	64.5	71.6	29.2	76.6	84.4	52.3	89.9
Black	15.1	5.1	18.3	34.3	6.0	36.2	54.1	8.3	56.5	70.1	19.3	72.9
Hispanic	16.4	3.5	18.5	41.1	5.1	42.3	55.1	6.8	56.8	67.7	17.9	70.5
Family income												
Low income	18.5	2.5	20.0	39.4	5.7	39.0	57.4	3.9	58.1	70.9	12.4	71.9
Middle income	29.5	9.7	34.5	52.3	17.0	49.9	66.2	18.0	69.5	78.6	36.4	82.8
High income	42.2	24.4	53.0	62.5	38.3	63.9	74.0	48.5	82.4	86.5	74.6	95.0
Grades 7–12												
Total	**28.9**	**13.4**	**36.2**	**43.0**	**21.1**	**52.1**	**57.0**	**27.7**	**65.6**	**73.5**	**49.2**	**84.3**
Race–ethnicity												
White	31.9	16.2	40.8	45.5	25.6	56.7	59.6	34.7	70.2	75.5	60.9	89.0
Black	18.4	4.9	20.8	36.5	8.5	39.7	50.5	10.2	53.5	74.2	22.3	77.9
Hispanic	21.2	3.6	23.2	34.4	9.0	38.3	52.6	9.5	56.1	65.4	21.5	69.4
Family income												
Low income	20.0	3.3	22.3	36.7	5.7	39.0	49.0	5.6	50.4	67.6	14.9	70.7
Middle income	28.4	10.1	33.6	42.6	17.0	49.9	57.3	22.2	64.1	74.1	44.2	83.5
High income	34.1	24.8	48.1	47.2	38.3	63.9	60.7	51.2	77.0	75.4	78.6	93.3

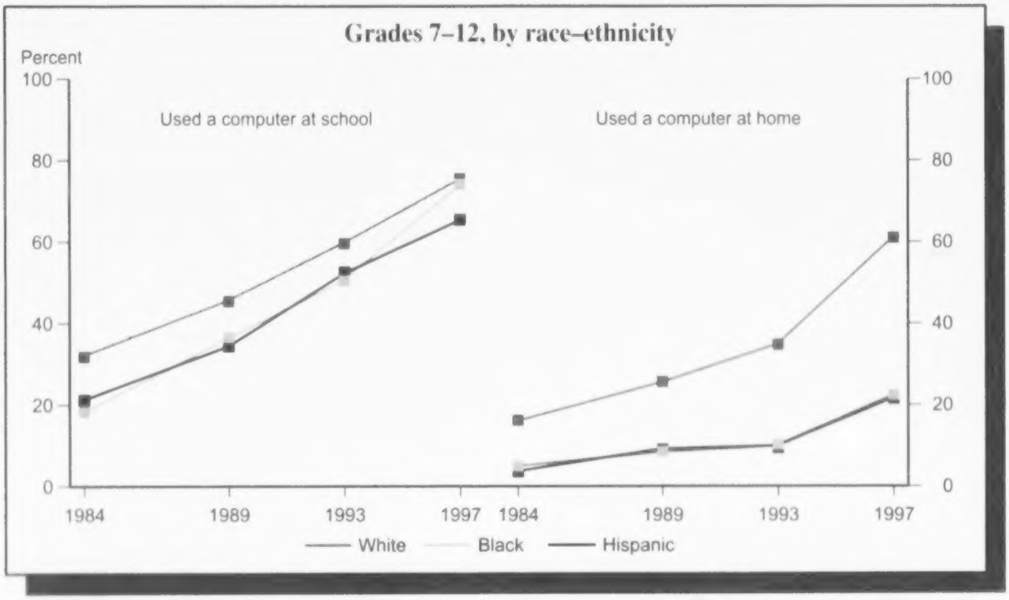
[1] Data are revised from previously published figures.

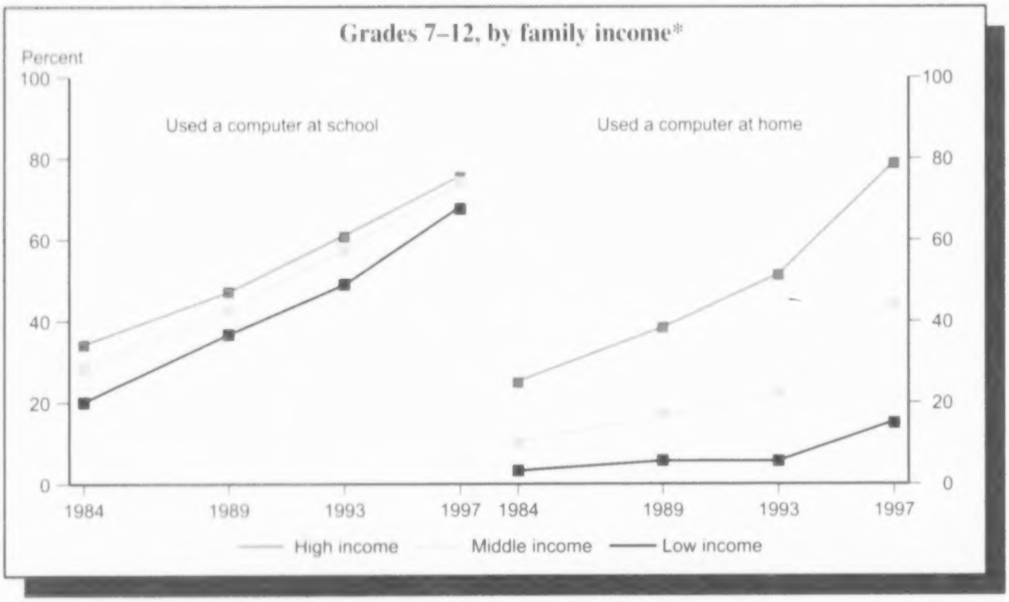
[2] Low income is the bottom 20 percent of all family incomes; high income is the top 20 percent of all family incomes; and middle income is the 60 percent in between. See the supplemental note to *Indicator 53* for further discussion.

NOTE: Data for 1984, 1989, and 1993 are revised from previously published figures.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Percentage of students who used a computer at school or home, by selected characteristics: 1984, 1989, 1993, and 1997


Grades 7–12, by race–ethnicity


Grades 7–12, by family income*

* Low income is the bottom 20 percent of all family incomes; high income is the top 20 percent of all family incomes and middle income is the 60 percent in between. See the supplemental note to *Indicator 53* for further discussion.

NOTE: Data for 1984, 1989, and 1993 are revised from previously published figures.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Uses of computers for mathematics instruction

As computers and other modern technologies become more prevalent in our nation's schools and classrooms, it becomes increasingly important to ensure that they are used effectively. In addition, there is growing concern about an emerging "digital divide" between those students who have access to and make effective use of technology for education and those who do not. Data from the 1996 National Assessment of Educational Progress (NAEP) provide insight into the uses of computers for 4th- and 8th-grade mathematics instruction.

- In 1996, teachers reported that 4th-grade students who used computers for mathematics instruction were most likely to use computers primarily to play learning games. In 8th grade, teachers reported that the primary use for students using computers was as likely to be drill and practice as playing learning games or simulations and applications. However, about twice as many teachers of 8th-grade students reported not using computers at all for mathematics instruction as did teachers of 4th-grade students.

- The patterns of technology used in mathematics instruction were not similar across racial–ethnic groups. For instance, according to teacher reports, the primary use of computers by black 4th-grade students was as likely to be for drill and practice as for playing learning games, while for black 8th-grade students, their primary use was more likely to be for drill and practice than for simulations and applications. For whites, on the other hand, teachers reported that 4th-grade students were more likely to use computers primarily for playing learning games than for drill and practice, and that the primary use of computers for 8th-grade students was equally likely to be for playing learning games as for drill and practice or simulations and applications. Despite these differences, teacher reports show that black and white students were equally likely to make no use of computers for instruction in both the 4th and 8th grades.

- It appears that whether or not 8th-grade students used computers at all for mathematics instruction was related to their Title I participation. Eighth-grade teachers who taught Title I students were more likely to report the use of computers by their students than teachers who did not teach Title I participants.

Percentage distribution of students according to the primary use of computers for mathematics instruction reported by their teachers, by grade, primary type of use, and selected student characteristics: 1996

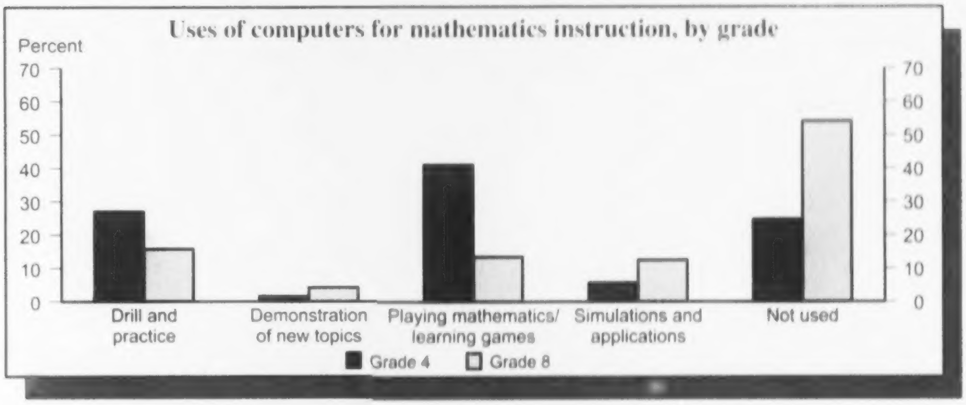
	Grade 4					Grade 8				
Selected student characteristics	Drill and practice	Demonstration of new topics	Playing math/ learning games	Simulations and applications	Not used	Drill and practice	Demonstration of new topics	Playing math/ learning games	Simulations and applications	Not used
Total	**27.0**	**1.6**	**41.0**	**5.7**	**24.7**	**15.8**	**4.2**	**13.4**	**12.5**	**54.1**
Sex										
Male	27.7	2.1	40.3	5.2	24.7	16.4	4.4	13.4	13.0	52.8
Female	26.3	1.1	41.8	6.1	24.7	15.0	4.1	13.4	11.9	55.6
Race–ethnicity										
White	26.6	1.6	42.3	5.7	23.8	14.1	5.2	12.4	13.9	54.5
Black	30.2	2.5	34.4	5.0	27.9	25.9	2.0	15.6	6.8	49.7
Hispanic	26.2	1.1	43.0	5.7	24.0	13.9	2.2	14.9	10.2	58.8
Title I participation*										
Participated	32.2	1.2	34.6	8.2	23.8	20.6	11.0	21.6	7.7	39.1
Did not participate	25.7	1.7	42.7	5.0	24.9	15.1	3.4	12.4	13.1	56.0

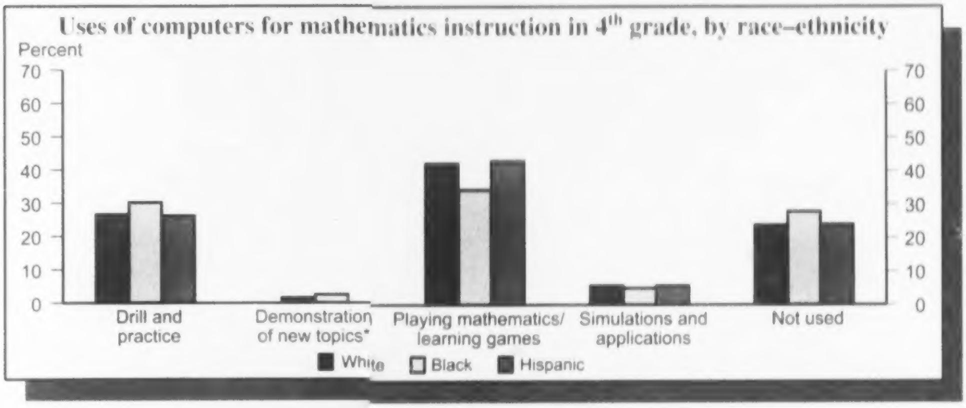
* Indicates that student receives benefits through participation in schoolwide Title I programs.

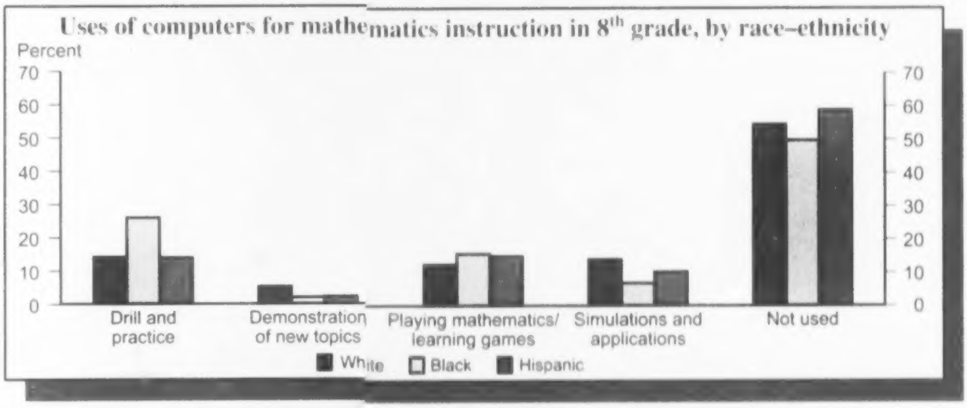
NOTE: Details may not add to 100.0 due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *1996 Summary Data Tables: Teacher Reports for Mathematics and Science*, 1998.

Uses of computers for mathematics instruction


Uses of computers for mathematics instruction, by grade


Uses of computers for mathematics instruction in 4th grade, by race–ethnicity


Uses of computers for mathematics instruction in 8th grade, by race–ethnicity

* Percentage for demonstration of new topics for Hispanic students is 1 percent; therefore, the percentage is not discernable in the graph.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *1996 Summary Data Tables: Teacher Reports for Mathematics and Science*, 1998.

Inclusion of students with disabilities in the least restrictive environment

The 1997 amendments to the Individuals with Disabilities Education Act (IDEA) placed renewed emphasis on educating students with disabilities in less restrictive environments. In particular, the law encourages opportunities for children with disabilities to participate in general education settings and in the general education curriculum. Inclusion of children with disabilities in such settings is important because it raises expectations for student performance, provides opportunities for children with disabilities to learn alongside their nondisabled peers, improves coordination between regular and special educators, and increases school-level accountability for educational results.

- Between 1986 and 1996, the percentage of children ages 6–21 with disabilities who were educated in regular classrooms increased substantially. For example, the percentage served in regular classrooms increased by nearly 20 percentage points, while the percentage served in resource rooms, separate classes, and separate residential facilities decreased.

- The types of environments in which children with disabilities are educated and the extent to which their educational environments have changed over time vary greatly by disability type. For example, in the 1995–96 academic year, about 89 percent of children with speech or language impairments were educated in regular classrooms, compared with about 10 percent of those with mental retardation. In addition, children with specific learning disabilities experienced the greatest increase in service in regular classrooms (27 percentage points), and those with deaf-blindness experienced the smallest increase (4 percentage points; see supplemental table 20-1).

- There has been a general downward trend in the percentage of children with disabilities who were educated in resource rooms and separate classes, but this pattern does not hold true for children with all disability types. Among children in 8 of the 12 disability categories, where disabilities tend to be more severe, placements in either resource rooms, separate classes, or both increased between 1985–86 and 1995–96 (between 1991–92 and 1995–96 for autism and traumatic brain injury). Even so, children in many of these 8 disability categories show relatively high decreases in placement in separate facilities (see supplemental table 20-1).

Percentage distribution of students with disabilities ages 6–21* according to the educational environments in which they were educated: Academic years ending 1986–96

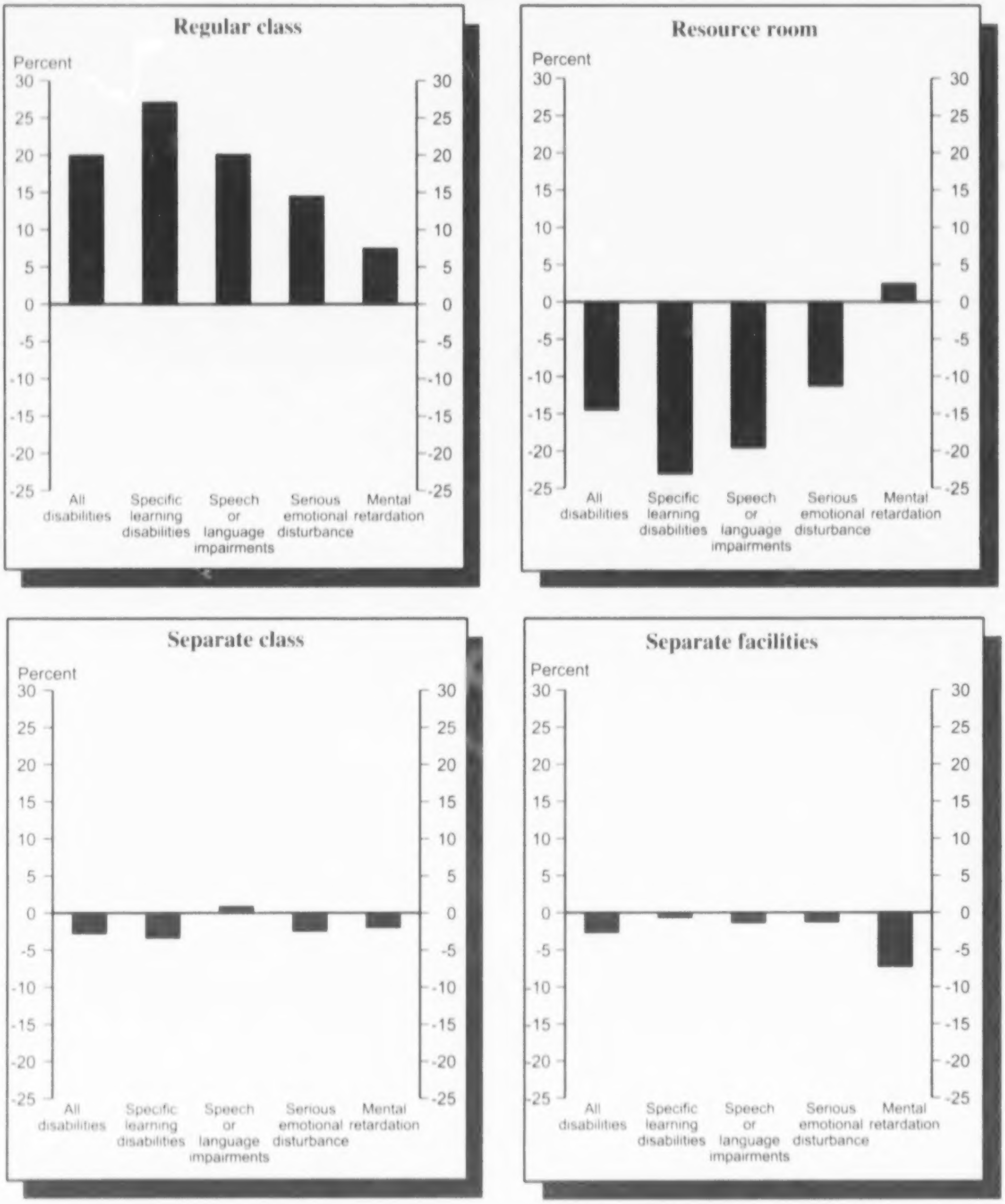
Educational environment	Academic year ending											Percentage point change
	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	
Regular class	25.5	26.4	28.9	30.5	31.5	32.8	34.9	39.8	43.4	44.5	45.4	19.9
Resource room	43.1	42.7	40.0	39.0	37.6	36.5	36.3	31.7	29.5	28.8	28.7	-14.4
Separate class	24.4	24.9	24.7	24.3	24.9	25.1	23.5	23.4	22.7	22.4	21.7	-2.7
Separate facilities	6.9	6.1	6.4	6.2	6.1	5.6	5.[illegible]	5.1	4.4	4.3	4.3	-2.6

* Based on the number of students served under Part B of the Individuals with Disabilities Education Act (IDEA) in the United States and outlying areas.

NOTE: See the supplemental note to this indicator for definitions of the different educational environments and disability types. Details may not add to 100.0 due to rounding.

SOURCE: U.S. Department of Education, Office of Special Education and Rehabilitative Services, *Annual Report to Congress on the Implementation of the Individuals with Disabilities Education Act*, 1988–1998.

Percentage point change between the 1985–86 and 1995–96 academic years of students ages 6–21* with disabilities educated in various educational environments, by selected disability types



Regular class

Resource room

Separate class

Separate facilities

* Based on the number of students served under Part B of the Individuals with Disabilities Education Act (IDEA) in the United States and outlying areas.

NOTE: See the supplemental note to this indicator for definitions of the different educational environments and disability types.

SOURCE: U.S. Department of Education, Office of Special Education and Rehabilitative Services. *Annual Report to Congress on the Implementation of the Individuals with Disabilities Education Act*, 1988–1998.

Reading and writing habits of students outside of school

Research has shown that reading ability is positively correlated with the extent to which students read recreationally. Educators are increasingly encouraging their students to read and write on their own, outside of school. Changes in the frequency with which students read and write independently, as well as in the types of materials students read and write, indicate the degree to which recreational activities related to education are supported outside of the classroom.

- Independent reading and writing habits of students have remained relatively stable across all age groups since 1984, with few exceptions. For example, although the percentage of students writing in journals or writing notes or messages outside of school at least once a week has remained nearly constant over the years, more 8th-grade students and 11th-grade students reported writing stories outside of school at least once a week in 1996 than in 1984; more 8th-grade students reported writing letters outside of school at least once a week. The percentage of 17-year-olds who reported reading for fun almost every day decreased.

- Between 1984 and 1996, a greater percentage of 9-year-olds than 13- and 17-year-olds reported reading for fun almost every day. In addition, 4th-grade students were more likely than 8th- or 11th-grade students to report that they wrote stories outside of class at least once a week.

- In 1996, 9-, 13-, and 17-year-old students who reported reading for fun almost every day had higher average reading proficiency scores than students who reported never or hardly ever reading for fun (see supplemental table 21-1).

- In 1996, the types of materials students read on their own and at school varied across age groups. For example, 17-year-olds were more likely than 9-year-olds to have read newspapers or magazines on their own, yet were equally likely to have last read newspapers or magazines at school. Of students who reported most recently having read a story or novel, 17-year-olds were more likely than 9-year-olds to have last read a story or novel at school but less likely to have last read a story or novel on their own (see supplemental table 21-2).

Percentage of students who wrote outside of class at least once a week, by grade and writing habit: 1984–96

Writing	Grade 4						Grade 8						Grade 11					
habit	1984	1988	1990	1992	1994	1996	1984	1988	1990	1992	1994	1996	1984	1988	1990	1992	1994	1996
Keep a diary/ journal	—	—	—	—	—	—	25.9	28.6	30.9	29.8	32.8	31.3	19.0	22.2	21.3	22.5	27.0	24.2
Write for school paper	—	—	—	—	—	—	8.0	8.1	9.2	11.1	10.2	8.7	5.3	4.8	7.1	5.7	8.5	7.0
Write letters to relatives	32.5	32.3	36.5	33.6	34.9	35.4	37.3	41.9	47.2	45.8	45.1	45.9	36.2	43.9	38.5	38.0	38.1	35.6
Write notes or messages	43.7	44.7	45.9	45.4	43.9	43.1	67.9	70.8	73.5	72.5	71.5	71.7	73.7	81.5	78.2	78.9	77.2	76.9
Write stories	25.9	24.2	25.6	28.8	25.5	26.8	10.2	15.3	14.3	16.8	18.0	18.8	11.7	15.3	14.2	15.8	15.9	19.1

Percentage distribution of students according to frequency of reading for fun, by age: 1984–96

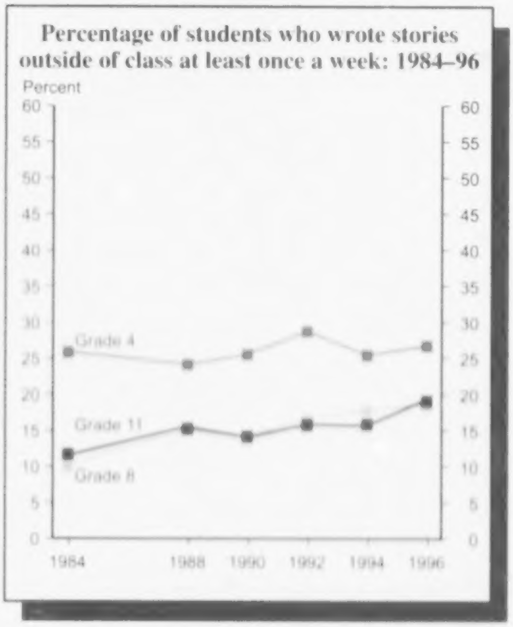
	Age 9						Age 13						Age 17					
Frequency	1984	1988	1990	1992	1994	1996	1984	1988	1990	1992	1994	1996	1984	1988	1990	1992	1994	1996
Almost every day	53.3	54.1	54.0	56.2	57.6	53.9	35.1	36.0	35.2	37.0	31.9	32.1	30.8	28.1	31.1	26.7	29.7	22.8
1-2 times a week	27.7	26.1	25.2	28.0	25.1	26.9	35.1	31.3	31.9	32.4	32.4	31.0	33.5	32.1	31.4	32.9	31.4	31.7
1-2 times a month	7.1	6.9	5.7	5.8	5.3	7.9	14.2	15.3	13.4	12.8	13.9	15.2	16.7	20.8	15.5	17.8	15.3	17.1
Few times a year	3.0	3.8	3.5	3.2	3.0	3.1	7.2	7.7	8.8	8.4	9.9	9.1	10.3	10.1	11.8	11.9	11.9	12.2
Never/hardly ever	8.9	9.1	11.6	6.8	9.0	8.2	8.5	9.7	10.8	9.5	11.8	12.6	8.7	8.9	10.2	10.7	11.7	16.1

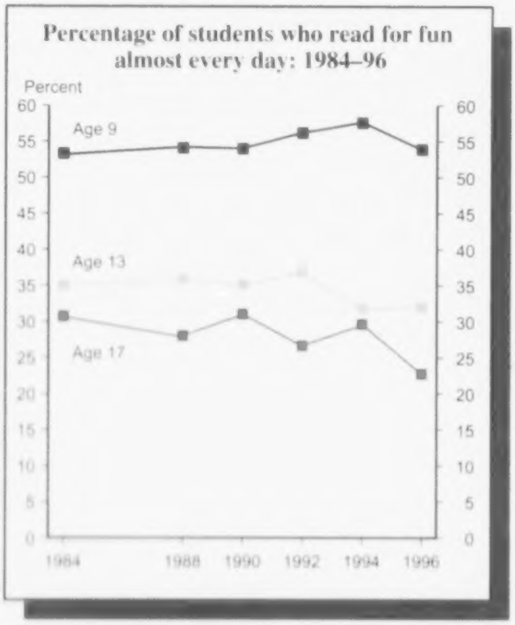
— Not available.

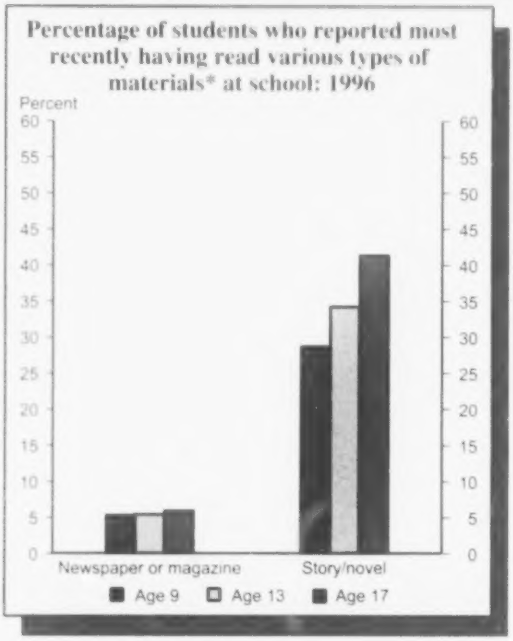
NOTE: In the first table details may not add to 100.0 because each writing habit was a separate survey question. In the second table details may not add to 100.0 due to rounding.

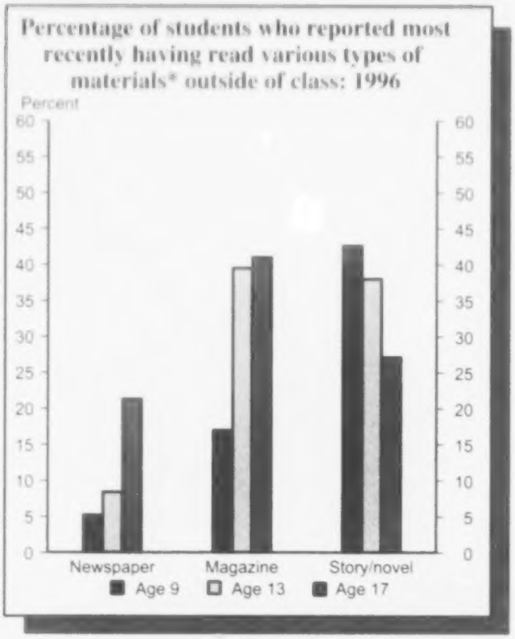
SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *Almanac: Reading 1984 to 1996, Writing 1984 to 1996*, 1998.

Reading and writing habits of students outside of school


Percentage of students who wrote stories outside of class at least once a week: 1984–96


Percentage of students who read for fun almost every day: 1984–96


Percentage of students who reported most recently having read various types of materials* at school: 1996


Percentage of students who reported most recently having read various types of materials* outside of class: 1996

* Based on last type of material read.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *Almanac: Reading 1984 to 1996, Writing 1984 to 1996*, 1998.

Requirements in teacher hiring

Concerns about the quality of education in the United States have focused interest on teacher qualifications and student exposure to well-qualified teachers. Following state requirements, school districts rely on teacher credentials, such as state certification or teachers' performance on national, state, or local tests, when considering teacher applicants. In most cases, these state requirements are minimums, which the districts may exceed. Examining trends in the requirements employed by public school districts provides information about the qualifications of teachers who are hired to teach in the Nation's schools.

- In 1987–88, 1990–91, and 1993–94, when considering applicants for teaching positions, public school districts were more likely to require applicants to hold credentials (e.g., full standard state certification) or other qualifications (e.g., college major or minor in field to be taught) than to pass tests. However, more public school districts required teacher applicants to have passed state tests of basic skills and subject knowledge and the National Teachers Examination (NTE) in 1993–94 than in 1987–88.

- Public school districts with a minority enrollment of less than 5 percent were more likely than districts with a minority enrollment of 50 percent or more to require teacher applicants to have full standard state certification or a college major or minor in the field to be taught in 1993–94. Conversely, districts with a low percentage of minority enrollment were less likely than districts with a minority enrollment of 50 percent or more to require teacher applicants to pass a state test of basic skills or subject knowledge (see supplemental table 22-1).

- Hiring requirements varied by region of the country. For example, public school districts in the Northeast were more likely to require full standard state certification and passage of the NTE than were districts in the Midwest, South, and West (see supplemental table 22-2).

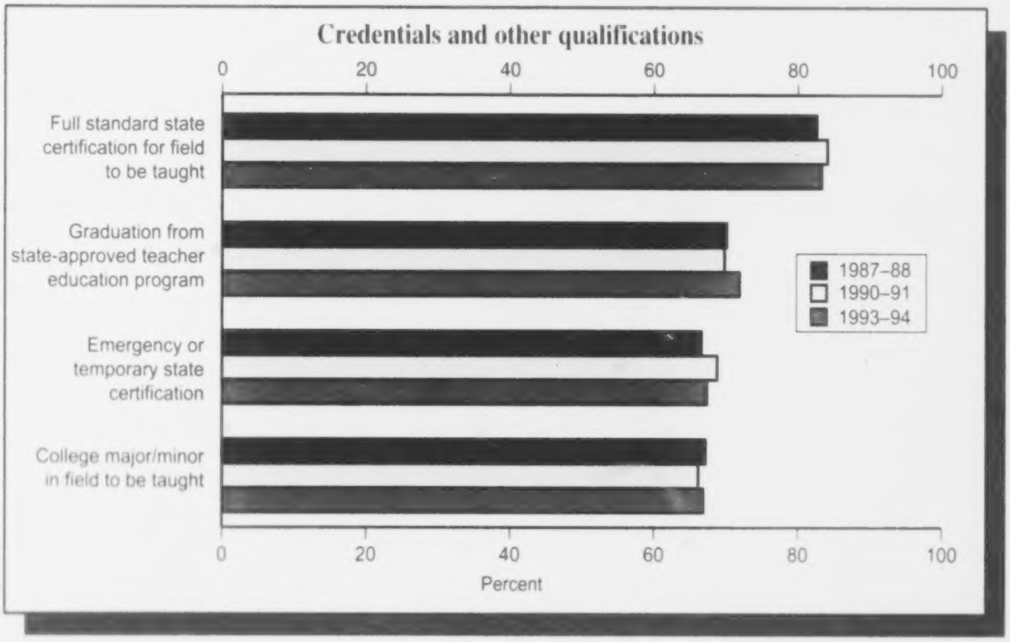
Percentage of public school districts with various requirements for teacher applicants, by type of requirement: School years 1987–88,1990–91, and 1993–94

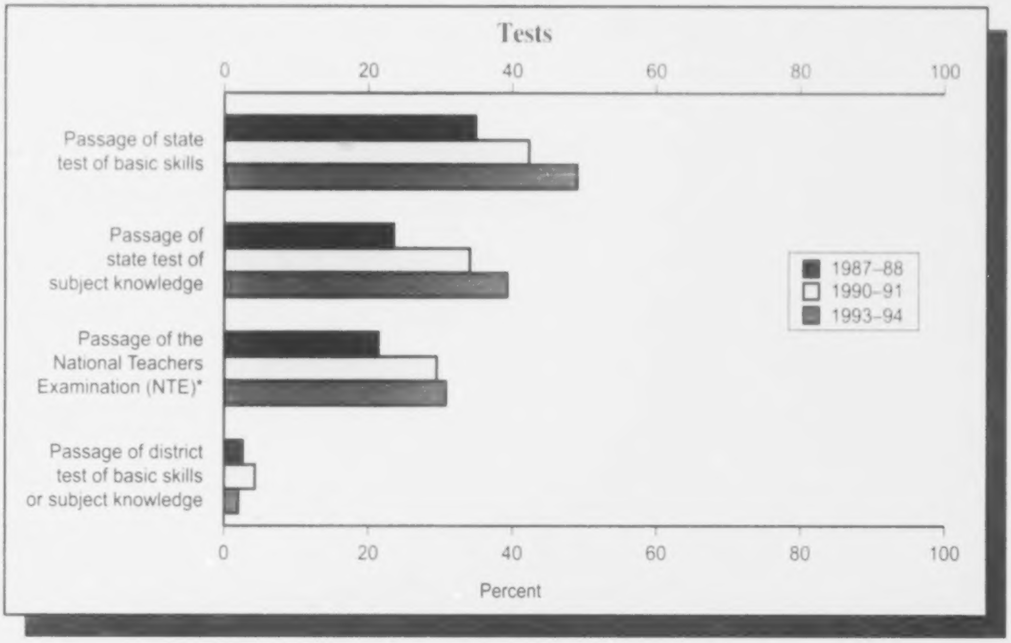
Requirements in teacher hiring	1987–88	1990–91	1993–94
Full standard state certification for field to be taught	82.6	84.1	83.3
Graduation from state-approved teacher education program	70.1	69.8	71.9
Emergency or temporary state certification	66.6	68.8	67.4
College major/minor in field to be taught	67.2	66.2	66.9
Passage of state test of basic skills	34.9	42.3	49.0
Passage of state test of subject knowledge	23.5	34.1	39.3
Passage of the National Teachers Examination (NTE)*	21.4	29.5	30.8
Passage of district test of basic skills or subject knowledge	2.6	4.3	2.0

* In 1993–94 only, districts indicated whether they required the NTE Core Battery and/or the Professional Specialty Area. Districts were counted as requiring the NTE if they checked either response option. In other years, districts indicated only whether they required the NTE Core Battery.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1987–88, 1990–91, and 1993–94 (Teacher Demand and Shortage Questionnaire for Public School Districts).

Percentage of public school districts requiring various credentials, qualifications, and the passage of various tests when considering teacher applicants: School years 1987–88, 1990–91, and 1993–94





* In 1993–94 only, districts indicated whether they required the NTE Core Battery and/or the Professional Specialty Area. Districts were counted as requiring the NTE if they checked either response option. In other years, districts indicated only whether they required the NTE Core Battery.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1987–88, 1990–91, and 1993–94 (Teacher Demand and Shortage Questionnaire for Public School Districts).

Teachers' feelings of preparedness

Reform initiatives, new technologies, and changing student populations have required teachers to learn new ways of presenting material and managing their classrooms. Teachers' initial professional training may not have prepared them adequately to meet current expectations, so continuing professional development is important. Teachers' self-assessments provide one indication of the extent to which preservice and on-the-job learning prepare them to meet the new demands.

- In 1998, the majority of public school teachers (71 percent) felt that they were very well prepared to maintain order and discipline in their classrooms.
- Fewer teachers felt that they were very well prepared to meet certain instructional requirements, including implementing new teaching methods (41 percent), implementing state or district curriculum and performance standards (36 percent), or using student performance assessment techniques (28 percent).
- Teachers were least likely to report that they felt very well prepared to integrate educational technology into their teaching methods (20 percent), or to address the needs of students with disabilities (21 percent) or of students with limited English proficiency or from diverse cultural backgrounds (20 percent).
- Teachers who spent more than 8 hours in professional development in the content area of a specific activity in the previous 12 months were generally more likely than other teachers to feel very well prepared in that area. The exception was the area in which teachers felt most prepared: maintaining order and discipline in the classroom.

Percentage distribution of public school teachers according to how well prepared they felt to perform various activities in the classroom, and the percentage of teachers who felt very well prepared, according to the number of hours spent in professional development in that content area in the last 12 months, by activity: 1998

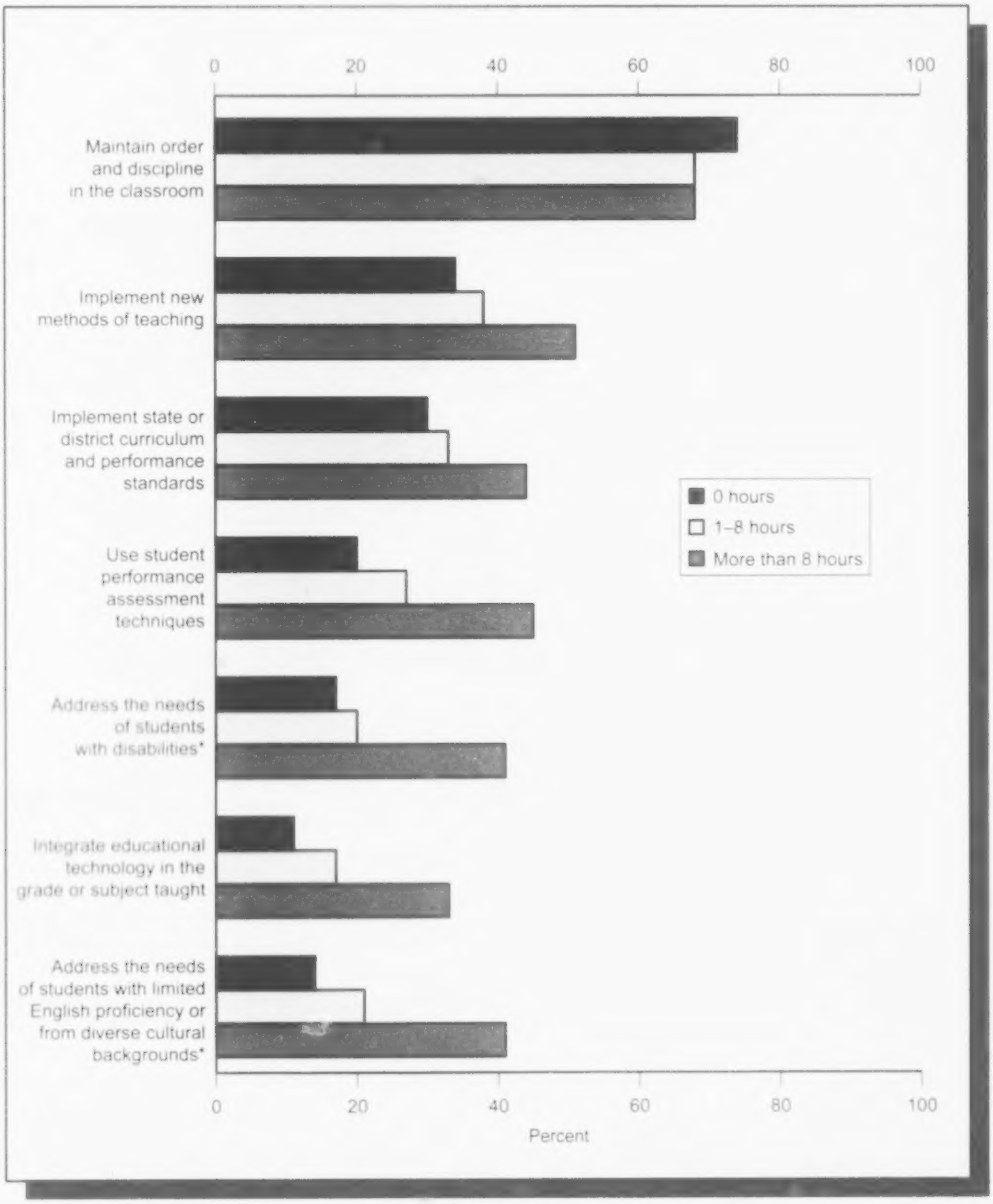
	How well prepared teachers felt				Very well prepared		
					Hours of professional development		
Activity	Very well prepared	Moderately well prepared	Somewhat well prepared	Not at all prepared	0 hours	1-8 hours	More than 8 hours
Maintain order and discipline in the classroom	71	24	4	1	74	68	68
Implement new methods of teaching (e.g., cooperative learning)	41	41	16	2	34	38	51
Implement state or district curriculum and performance standards	36	41	20	3	30	33	44
Use student performance assessment techniques (e.g., methods of testing, applying results to modify instruction)	28	41	26	4	20	27	45
Address the needs of students with disabilities*	21	41	30	7	17	20	41
Integrate educational technology in the grade or subject taught	20	37	34	9	11	17	33
Address the needs of students with limited English proficiency or from diverse cultural backgrounds*	20	33	30	17	14	21	41

* Percentages based on teachers who teach such students.

NOTE: Details may not add to 100 due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Fast Response Survey System, Teacher Survey on Professional Development and Training, 1998.

Percentage of public school teachers who felt they were very well prepared to perform various activities in the classroom, according to the number of hours spent in professional development in that content area, in the last 12 months, by activity: 1998



* Percentages based on teachers who teach such students

SOURCE: U.S. Department of Education, National Center for Education Statistics, Fast Response Survey System, Teacher Survey on Professional Development and Training, 1998

Teachers' participation in collaborative activities

Teachers can improve their teaching practices by engaging in frequent and planned collaborative activities with other teachers. Such activities can include team teaching, mentoring, formal planning meetings, and research projects. In the larger teaching community, collaborative activities might include school-university partnerships, teacher networks, or task forces organized around subject matter, pedagogical issues, or school reform.

- In 1998, 81 percent of teachers reported participating in regularly scheduled collaboration with other teachers at least a few times in the previous 12 months. The next most common activities were engaging in a common planning period for team teachers (62 percent) and networking with teachers outside their school (61 percent). Conducting individual or collaborative research on a topic of interest professionally (53 percent) was next. Teachers were least likely to have been involved in mentoring activities, either mentoring another teacher (26 percent) or being mentored (19 percent; see supplemental table 24-1).

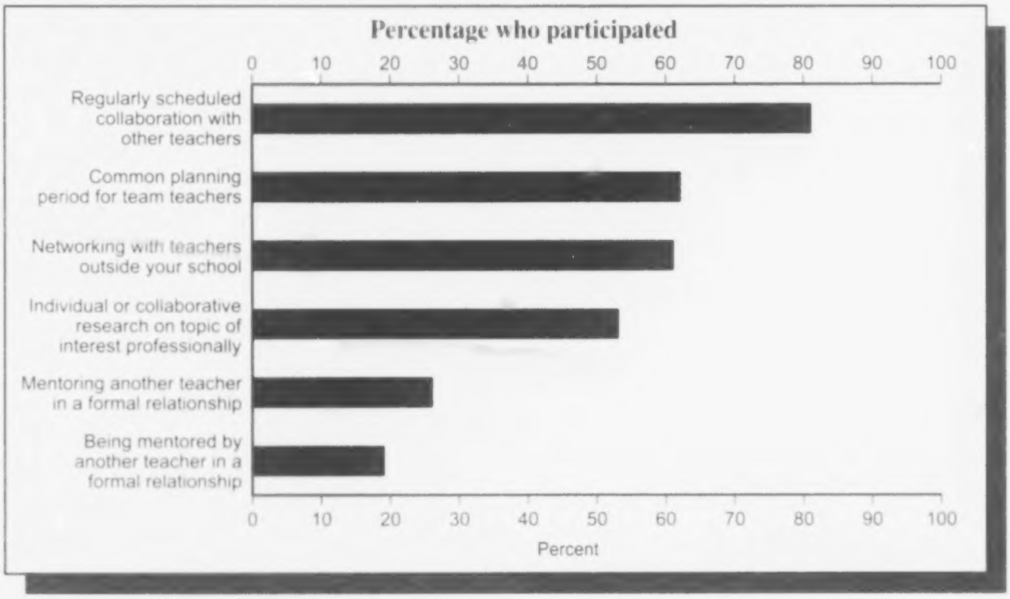
- Of particular importance is the effect that participation in collaborative activities has on teaching practice. Seventy percent of teachers who were mentored by another teacher at least once a week reported that this activity helped them a lot. A clear relationship exists between the amount of time teachers engage in collaborative activities and the extent to which they believe the activities improve their teaching a lot. With the exception of mentoring another teacher, about half or more of the teachers who had participated in these activities at least once a week during the previous 12 months believed that this participation improved their teaching a lot. In contrast, those who had participated once a month or less were less likely to hold this belief (again with the exception of mentoring another teacher).

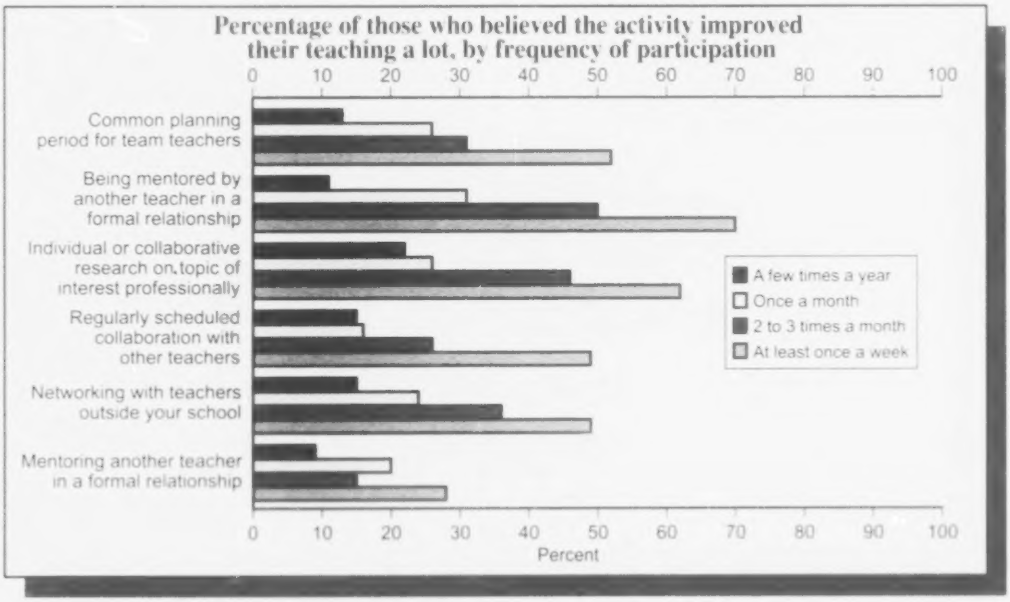
Percentage of public school teachers who participated in various collaborative activities in the past 12 months who believed the activity improved their teaching a lot, by frequency of participation: 1998

		Frequency of participation			
Activity	Total	A few times a year	Once a month	2 to 3 times a month	At least once a week
Common planning period for team teachers	40	13	26	31	52
Being mentored by another teacher in a formal relationship	34	11	31	50	70
Individual or collaborative research on topic of interest professionally	34	22	26	46	62
Regularly scheduled collaboration with other teachers	29	15	16	26	49
Networking with teachers outside your school	23	15	24	36	49
Mentoring another teacher in a formal relationship	19	9	20	15	28

SOURCE: U.S. Department of Education, National Center for Education Statistics, Fast Response Survey System, Teacher Survey on Professional Development and Training, 1998.

Percentage of public school teachers who had participated in various collaborative activities in the past 12 months and the perceived effect: 1998





SOURCE: U.S. Department of Education, National Center for Education Statistics, Fast Response Survey System, Teacher Survey on Professional Development and Training, 1998.

Salaries of teachers

Attracting and retaining quality teachers are growing concerns among education officials and the public. This is especially true for beginning teachers as school districts compete with each other and other industries for additional teaching personnel to cope with growing enrollments and an aging work force of experienced teachers who are nearing retirement. Increased salaries potentially provide a means of attracting and retaining the increased numbers of quality young teachers who will be needed in the years ahead.

- As a wave of younger teachers hired in the mid-1970s has aged, a demographic shift in the age of teachers has occurred. For example, in 1975, 53 percent of all full-time teachers were younger than age 35; in 1993, the percentage of younger teachers fell to about 23 percent. Meanwhile, the percentage of full-time teachers 45 years old or older increased from about 26 percent in 1975 to 43 percent in 1993.

- The annual median salaries (in constant 1998 dollars) of full-time teachers decreased between 1971 and 1981 by about $500–700 annually in each age group.

- Between 1981 and 1989, the salaries of teachers rose. For the oldest group of teachers, salaries rose by about $1,100 per year, on average, while for the middle and youngest age groups, salaries increased by smaller amounts.

- Since 1989, the salaries of the oldest and youngest groups of teachers have remained about the same, while the salaries of the middle age group (between ages 35 and 44) have declined by about $400 per year, on average (in constant 1998 dollars).

- The difference between the annual median salaries of bachelor's degree recipients and all teachers declined from about $5,000 in 1981 to $2,300 in 1998. This decline in the salary gap has been due mainly to increases in the relative size of the older teaching work force and in the salaries of teachers ages 45 or older.

Percentage distribution and annual median salaries (in constant 1998 dollars) of full-time elementary and secondary school teachers, by age: 1971–98

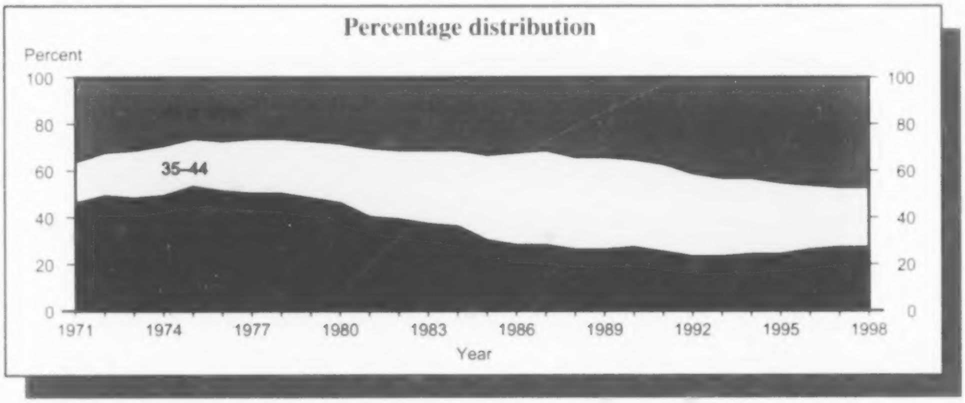
	All elementary and secondary school teachers			Annual median salaries in constant 1998 dollars				
	Age				Age			Bachelor's degree recipients*
Year	Less than 35	35–44	45 or older	Total	Less than 35	35–44	45 or older	
1971	46.4	18.1	35.5	$34,113	$31,042	$37,522	$37,369	$39,736
1973	47.7	20.6	31.7	34,138	31,102	38,690	37,758	39,740
1975	53.1	21.2	25.7	31,581	28,361	37,070	35,106	35,541
1977	49.9	24.4	25.8	32,003	28,781	36,113	37,135	37,030
1979	48.0	25.2	26.8	30,061	26,899	32,508	35,204	35,283
1981	39.7	30.4	30.0	28,576	24,681	31,169	31,099	33,584
1983	36.8	32.0	31.2	31,122	25,589	33,716	35,867	34,464
1985	29.7	37.3	33.0	33,188	26,453	34,660	38,026	35,954
1987	28.1	40.8	31.2	34,893	29,327	37,039	38,842	37,714
1989	25.8	39.5	34.6	34,668	27,543	35,860	40,341	36,923
1991	25.1	38.2	36.6	34,322	28,477	34,562	39,738	36,924
1993	22.7	34.3	43.0	34,947	29,249	33,716	41,103	36,585
1995	24.2	30.7	45.1	35,134	28,709	33,978	39,759	37,817
1997	27.3	25.8	46.9	32,295	27,121	31,273	38,406	36,740
1998	26.7	25.5	47.8	35,099	29,119	33,105	41,661	37,399

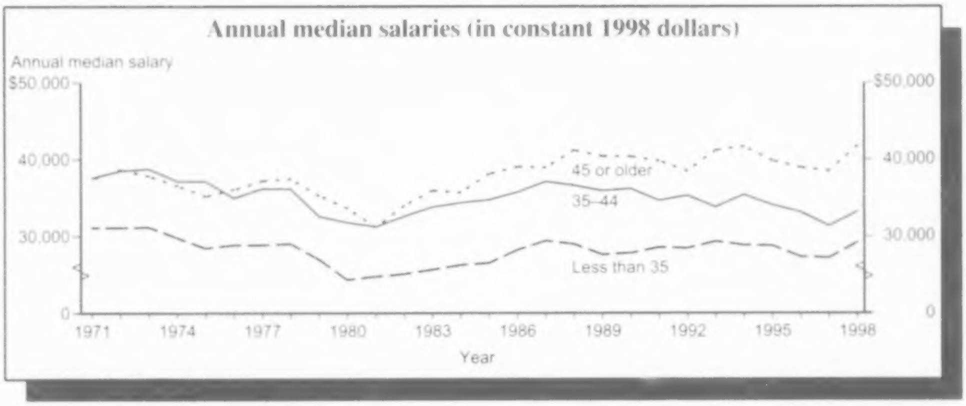
* Includes full-time employed bachelor's degree recipients only.

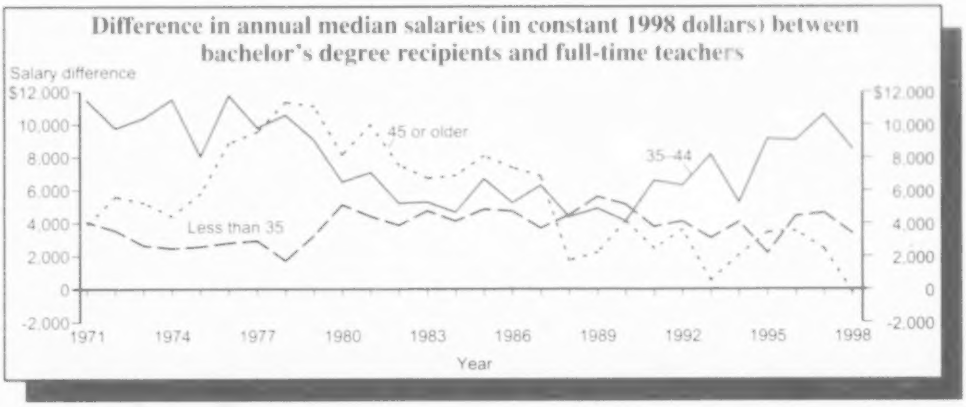
NOTE: Median salaries refer to the previous calendar year; for example, salaries reported in 1971 refer to salaries earned in 1970. The Consumer Price Index (CPI) was used to calculate constant dollars. Includes full-time public and private school teachers who taught grades 1–12. Details may not add to 100.0 due to rounding.

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

Percentage distribution and annual median salaries of full-time elementary and secondary teachers, by age: 1971–98


Percentage distribution


Annual median salaries (in constant 1998 dollars)


Difference in annual median salaries (in constant 1998 dollars) between bachelor's degree recipients and full-time teachers

NOTE: Median salaries refer to the previous calendar year; for example, salaries reported in 1971 refer to salaries earned in 1970. The Consumer Price Index (CPI) was used to calculate constant dollars. Includes full-time public and private school teachers who taught grades 1–12.

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

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Student victimization at school

Violence in schools makes teaching difficult and inhibits student learning. In addition, unsafe school environments expose students who may already be at risk for school failure to other failure-related factors such as physical and emotional harm. In recent years, educators, parents, and policymakers have voiced growing concern about possible increases in the incidence of school-related criminal behavior. Studying trends in victimization rates provides a picture of the safety of today's schools.

- Victimization rates at school for high school seniors changed little between 1976 and 1997. The most common type of victimization at school in the previous 12 months reported by high school seniors in 1997 was having something stolen (39 percent).

- In 1997, there were no differences in reported victimization rates at school in the previous 12 months for white and black high school seniors (see supplemental table 26-1).

- In 1997, high school seniors from metropolitan and nonmetropolitan areas were about equally likely to report being victimized at school in the previous 12 months (see supplemental table 26-2).

- High school seniors in 1997 were more likely to report being threatened at school without a weapon than being threatened with a weapon during the previous 12 months (21 versus 11 percent). Similarly, high school seniors in 1997 were more likely to report being injured at school without a weapon than being injured with a weapon during the previous 12 months (12 versus 5 percent).

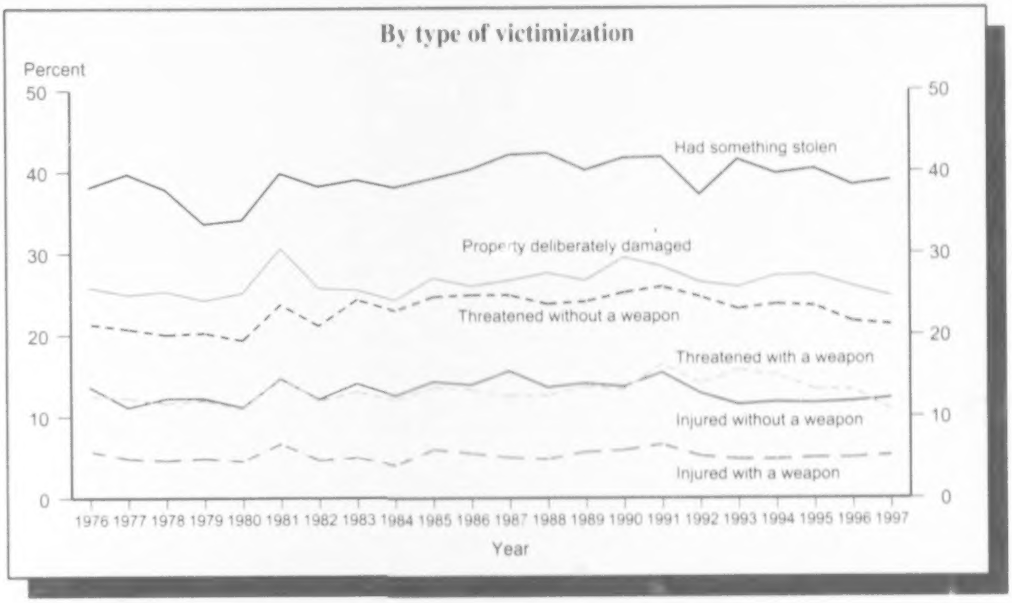
Percentage of high school seniors who reported being victimized at school during the previous 12 months, by type of victimization: 1976–97

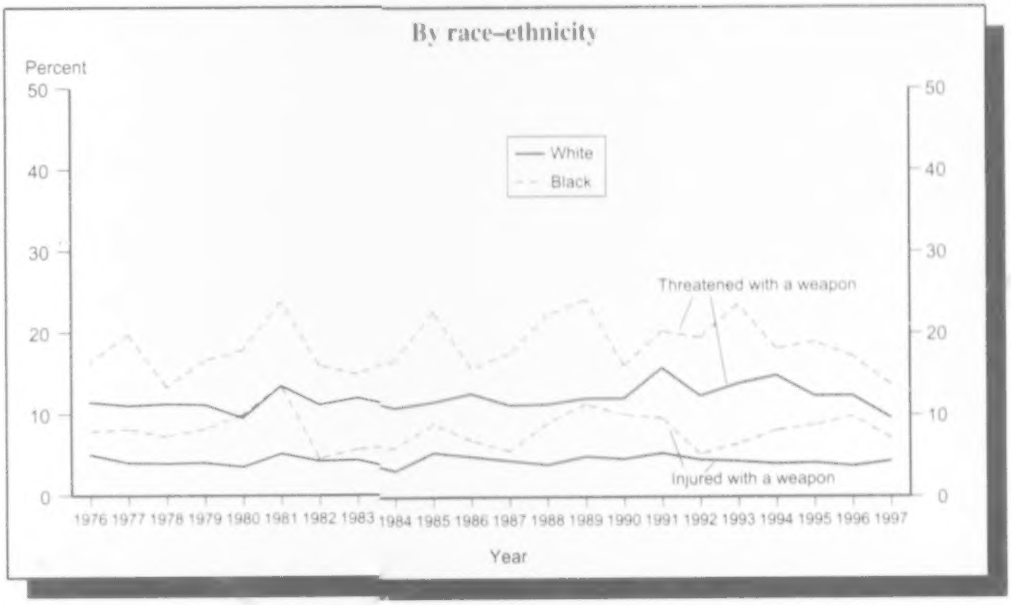
Year	Had something stolen	Property deliberately damaged	Injured with a weapon	Threatened with a weapon	Injured without a weapon	Threatened without a weapon
1976	38.1	25.8	5.7	12.5	13.6	21.3
1977	39.7	24.9	4.8	12.2	11.1	20.7
1978	37.8	25.3	4.6	11.6	12.2	20.0
1979	33.6	24.2	4.8	11.9	12.2	20.2
1980	34.1	25.1	4.5	10.9	11.1	19.3
1981	39.8	30.6	6.6	14.8	14.6	23.7
1982	38.2	25.7	4.6	11.9	12.1	21.1
1983	39.0	25.5	4.9	13.0	14.0	24.3
1984	38.0	24.2	4.0	11.9	12.5	22.9
1985	39.1	26.9	5.9	13.5	14.2	24.6
1986	40.2	25.9	5.4	13.2	13.8	24.8
1987	42.0	26.6	4.9	12.4	15.5	24.8
1988	42.2	27.5	4.7	12.5	13.5	23.7
1989	40.1	26.6	5.6	13.6	14.0	24.0
1990	41.6	29.4	5.8	13.2	13.6	25.1
1991	41.7	28.3	6.5	16.3	15.3	25.8
1992	37.1	26.4	5.1	14.0	12.8	24.6
1993	41.4	25.8	4.7	15.6	11.4	23.1
1994	39.7	27.2	4.7	15.0	11.7	23.7
1995	40.3	27.3	4.9	13.3	11.6	23.5
1996	38.3	25.9	4.9	13.2	11.8	21.6
1997	38.9	24.7	5.2	10.8	12.2	21.2

NOTE: Estimates were tabulated using restricted-use files. Response rates for this survey do not meet NCES standards.

SOURCE: University of Michigan, Survey Research Center, Institute for Social Research, Monitoring the Future Study.

Percentage of high school seniors who reported being victimized at school during the previous 12 months: 1976–97


By type of victimization


By race–ethnicity

NOTE: Estimates were tabulated using restricted-use files. Response rates for this survey do not meet NCES standards.

SOURCE: University of Michigan, Survey Research Center, Institute for Social Research, Monitoring the Future Study.

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Student alcohol and drug use

Alcohol and drug use can interfere with a student's ability to concentrate, reduce a student's academic achievement, and in some cases is associated with violent crime. Therefore, it is important for educators and administrators to determine the extent of student alcohol and drug use and how this use affects the school's goal of providing a safe and effective learning environment. The percentage of students who report alcohol and drug use is an indicator of a safe and effective learning environment.

- Between 1976 and 1998, the percentage of high school seniors who reported using alcohol, marijuana, stimulants, cocaine, or tranquilizers at school during the previous year decreased. For example, the percentage of seniors in 1998 who reported using marijuana at school during the previous year was less than half the percentage who reported doing so in 1976 (8 versus 21 percent).

- The percentage of high school seniors who reported using drugs or alcohol at any time during the previous year also decreased between 1975 and 1998. However, after reaching its lowest point in the early 1990s, drug use at any time during the previous year by high school seniors began to increase again for most drugs. For example, the percentage of seniors who reported using marijuana at any time during the previous year increased from 22 percent in 1992 to 38 percent in 1998 (see supplemental table 27-1).

- Between 1991 and 1998, the percentage of 8th-, 10th-, and 12th-graders who reported using marijuana, smoking cigarettes, or using any illicit drug other than marijuana in the previous 30 days increased (see supplemental table 27-2).

- In 1998, more 8th-, 10th-, and 12th-graders reported that it would be "fairly easy" or "very easy" to obtain marijuana than did their counterparts in 1992 (see supplemental table 27-3).

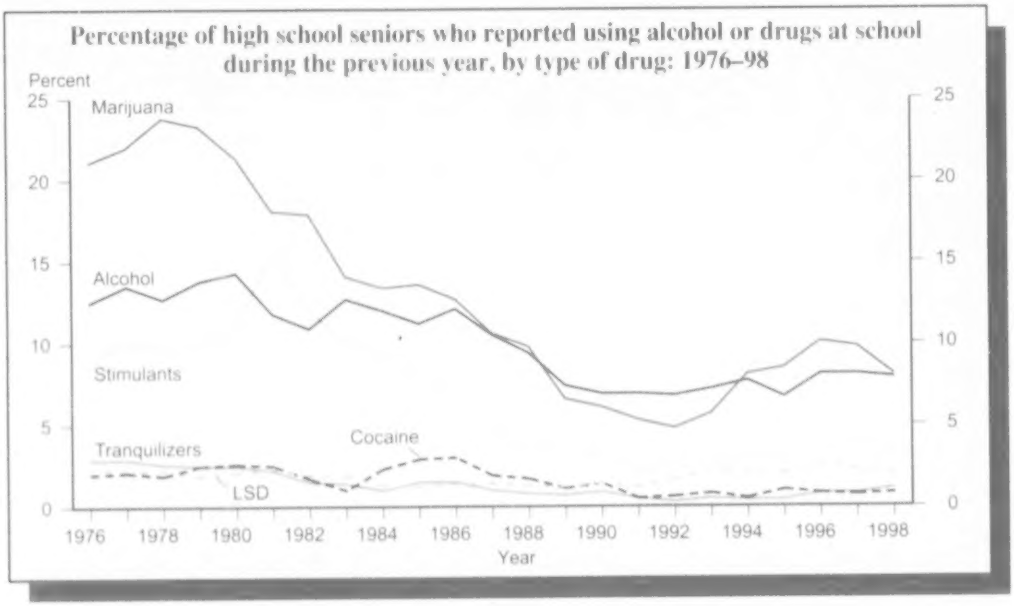
Percentage of high school seniors who reported using alcohol or drugs at school during the previous year, by type of drug: 1976–98

Type of drug	1976	1978	1980	1982	1984	1986	1988	1990	1991	1992	1993	1994	1995	1996	1997	1998
Alcohol	12.5	12.7	14.3	10.9	12.0	12.1	9.4	6.9	6.9	6.8	7.2	7.7	6.7	8.1	8.1	7.9
Marijuana	21.1	23.8	21.4	17.9	13.4	12.7	9.8	6.1	5.3	4.8	5.7	8.1	8.5	10.1	9.8	8.1
LSD	2.3	2.2	2.1	1.9	1.3	1.4	1.3	1.4	1.2	1.6	2.3	2.0	2.0	2.5	2.2	2.0
Stimulants	9.0	9.7	11.1	12.1	9.4	6.3	3.5	3.1	2.2	2.3	2.6	3.0	3.1	3.2	4.2	3.6
Cocaine	2.0	1.9	2.6	1.7	2.3	3.0	1.7	1.4	0.5	0.6	0.8	0.5	1.0	0.8	0.7	0.8
Tranquilizers	2.9	2.6	2.5	1.5	1.0	1.5	0.8	0.9	0.5	0.3	0.5	0.4	0.4	0.8	0.8	1.1

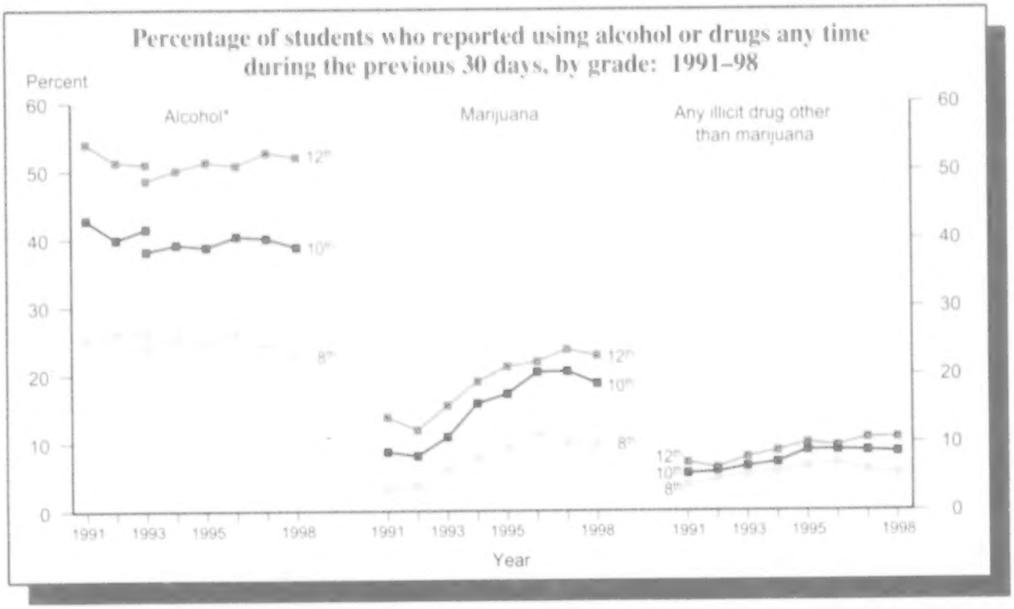
NOTE: Only drug use not under a doctor's orders is included. Estimates were tabulated using restricted-use files. Response rates for this survey do not meet NCES standards.

SOURCE: University of Michigan, Survey Research Center, Institute for Social Research, Monitoring the Future Study.

Student alcohol and drug use



Percentage of high school seniors who reported using alcohol or drugs at school during the previous year, by type of drug: 1976–98



Percentage of students who reported using alcohol or drugs any time during the previous 30 days, by grade: 1991–98

* In 1993, the questions regarding alcohol consumption changed; therefore, data for alcohol use from 1993 through 1998 may not be comparable to earlier years. For example, in 1993, the original wording produced estimates of 26, 42, and 51 percent for alcohol use of 8th-, 10th-, and 12th-graders, respectively. The new wording produced estimates of 24, 38, and 49 percent for alcohol use of 8th-, 10th-, and 12th-graders, respectively.

NOTE: Only drug use not under a doctor's orders is included. Estimates were tabulated using restricted-use files. Response rates for this survey do not meet NCES standards.

SOURCE: University of Michigan, Survey Research Center, Institute for Social Research, Monitoring the Future Study.

Tuition and enrollment in private schools

Private schools provide alternatives to the public schools. Whether or not parents choose a private school for their child may be a function of many factors, including tuition levels, family income, the relative value placed on education, satisfaction with public schools, and the availability of public schools (especially at the preschool level). Variations among population subgroups in the proportion of children enrolled in private schools may reflect differences in any of these factors.

- In 1997, 50 percent of preschool students were enrolled in private schools, a decrease from 1979 when 63 percent of these students were enrolled in private schools. During this period, enrollment in private schools dropped slightly at the elementary level and remained stable at the secondary level.
- Between 1979 and 1997, at successively higher grade levels, smaller percentages of students attended private schools.
- Students from high-income families were more likely than other students to attend private schools at all grade levels between 1979 and 1997. However, in 1997, a majority of preschool, kindergarten, and elementary students who attended church-related schools were from low- and middle-income families (see supplemental table 28-2).
- Median tuition paid at all levels of private schools increased between 1979 and 1997. In 1997, the 75th percentile of tuition paid was at least twice as high as the 25th percentile of tuition, with the largest gaps occurring at the secondary level.

Percentage of students who were enrolled in private schools, by family income and school level: October 1979, 1991, 1994, and 1997

	Total				Low income				Middle income				High income			
School level	1979	1991	1994	1997	1979	1991	1994	1997	1979	1991	1994	1997	1979	1991	1994	1997
Preschool	63.4	60.2	53.1	49.9	25.5	17.4	17.8	18.8	63.3	59.4	51.3	49.2	78.3	81.6	77.5	72.5
Kindergarten	13.9	14.2	13.5	16.8	3.2	4.0	5.0	6.8	13.5	12.5	13.2	15.7	23.2	28.3	22.6	28.2
Elementary	11.0	9.5	10.1	9.4	3.9	2.6	3.5	2.7	9.4	8.3	9.3	8.5	18.4	17.8	16.3	16.5
Secondary	7.1	6.9	7.0	7.3	2.3	2.2	2.7	2.9	5.4	5.5	5.9	5.6	11.8	12.5	11.3	13.3

NOTE: Low income is the bottom 20 percent of all family incomes; high income is the top 20 percent of all family incomes; and middle income is the 60 percent in between. See the supplemental note to *Indicator 53* for further discussion.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

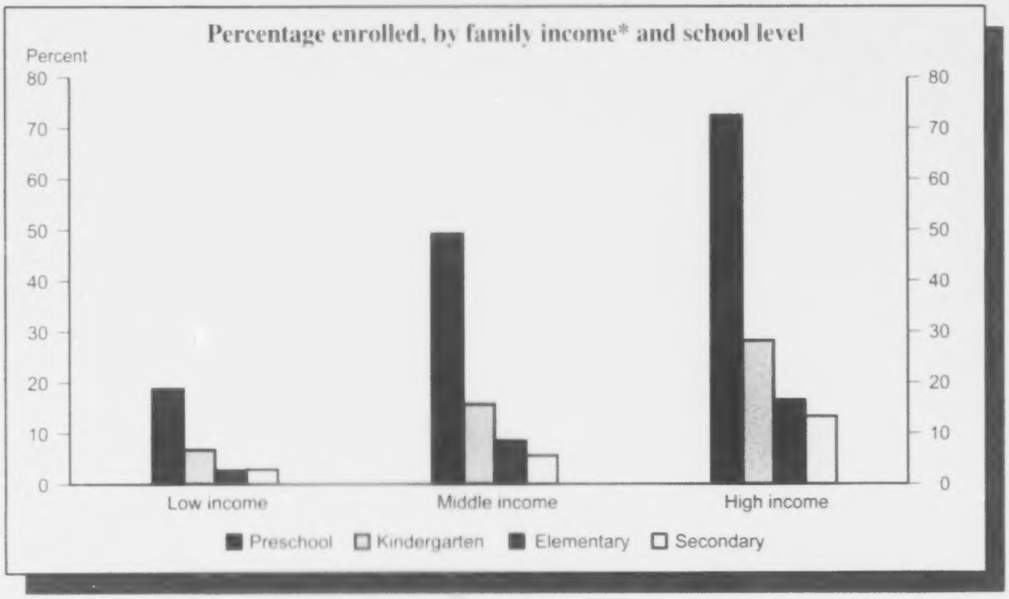
Tuition at selected percentiles (in constant 1998 dollars), by school level and type: October 1979, 1991, 1994, and 1997

School level	1979			1991			1994			1997		
and type	25th	50th	75th	25th	50th	75th	25th	50th	75th	25th	50th	75th
Preschool	$517	$838	$2,190	$573	$1,092	$2,913	$433	$1,013	$2,670	$650	$1,358	$3,636
K-12	622	1,386	2,606	942	1,725	3,036	993	1,888	3,232	1,431	2,546	4,980
Kindergarten	530	952	1,786	705	1,552	2,736	664	1,306	2,679	1,066	1,813	3,570
Elementary	305	811	1,538	817	1,388	2,288	930	1,700	2,746	1,275	2,115	4,622
Secondary	1,525	1,983	2,569	2,175	3,198	4,699	1,938	3,140	4,307	2,778	4,166	9,374

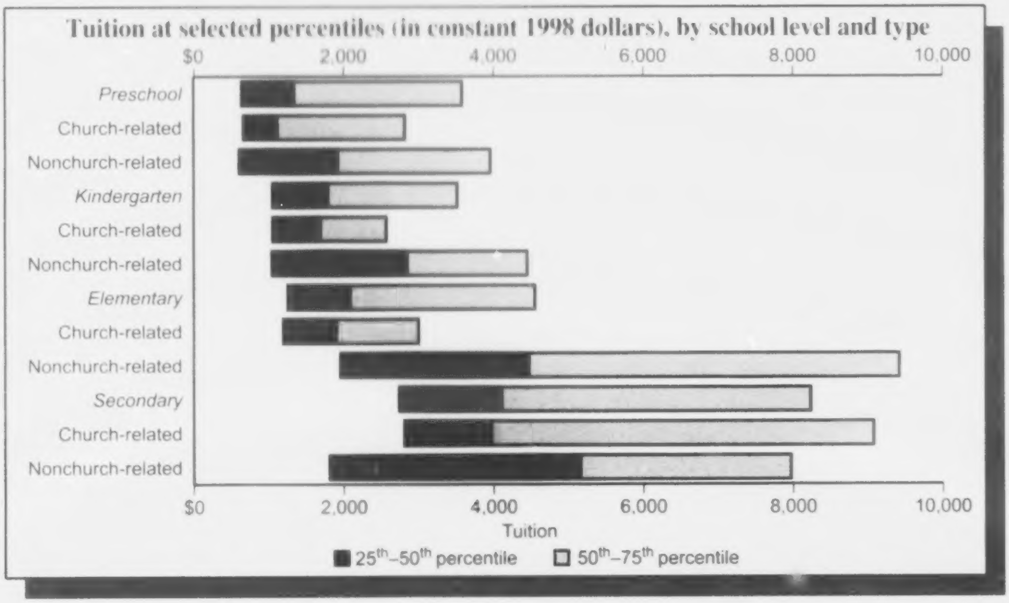
NOTE: In 1994 and 1997, the Current Population Survey (CPS) changed the questions used to obtain tuition data. See the supplemental note to this indicator for further discussion. Additionally, in 1994, the survey methodology for the CPS was changed and weights were adjusted. See the supplemental note to *Indicator 51* for further discussion.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Percentage of students who were enrolled in private schools and tuition at selected percentiles: October 1997



Percentage enrolled, by family income* and school level



Tuition at selected percentiles (in constant 1998 dollars), by school level and type

* Low income is the bottom 20 percent of all family incomes; high income is the top 20 percent of all family incomes; and middle income is the 60 percent in between. See *Indicator 53* for further discussion.

NOTE: In 1994 and 1997, the Current Population Survey (CPS) changed the questions used to obtain tuition data. See the supplemental note to this indicator for further discussion. Additionally, in 1994, the survey methodology for the CPS was changed and weights were adjusted. See the supplemental note to *Indicator 51* for further discussion.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Section III. Quality of Education Environments (Postsecondary)

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Remedial education in higher education institutions

The role of remedial courses in higher education institutions has been the subject of ongoing debate among policymakers and educators. Some view remedial courses as a way to expand educational opportunities for unprepared students, while others feel that remedial courses should be discouraged because precollege-level courses have no place in the college curriculum. The percentage of institutions offering remedial courses and the percentage of freshmen who enroll in them provide a snapshot of the current availability of and demand for these courses at higher education institutions.

- The percentage of freshmen enrolled in remedial courses and the percentage of institutions offering such courses were similar in 1989 and 1995.

- In 1995, freshmen were more likely to enroll in a remedial mathematics course than in a remedial reading or writing course. In fact, from 1989 to 1995, the percentage of freshmen who enrolled in remedial mathematics courses increased, while the percentage who enrolled in remedial reading or writing courses was similar.

- In 1995, freshmen in public 2-year colleges were far more likely to enroll in remedial courses than their peers in public 4-year institutions (41 versus 22 percent).

- In 1995, almost all public 2-year institutions offered remedial writing and mathematics courses, while about three-quarters of public 4-year institutions offered remedial courses in these subjects. Half of private 4-year institutions offered remedial writing and mathematics courses.

- In 1995, a larger percentage of institutions with high minority enrollment offered remedial reading, writing, and mathematics courses than institutions with low minority enrollment.

Percentage of freshmen enrolled in remedial courses, by subject, control and type of institution, and minority enrollment: Fall 1989 and 1995

		Fall 1995						
	Fall		Public		Private		Minority enrollment*	
Subject	1989	Total	2-year	4-year	2-year	4-year	High	Low
Reading, writing, or mathematics	30	29	41	22	26	13	43	26
Reading	13	13	20	8	11	7	25	11
Writing	16	17	25	12	18	8	29	15
Mathematics	21	24	34	18	23	9	35	21

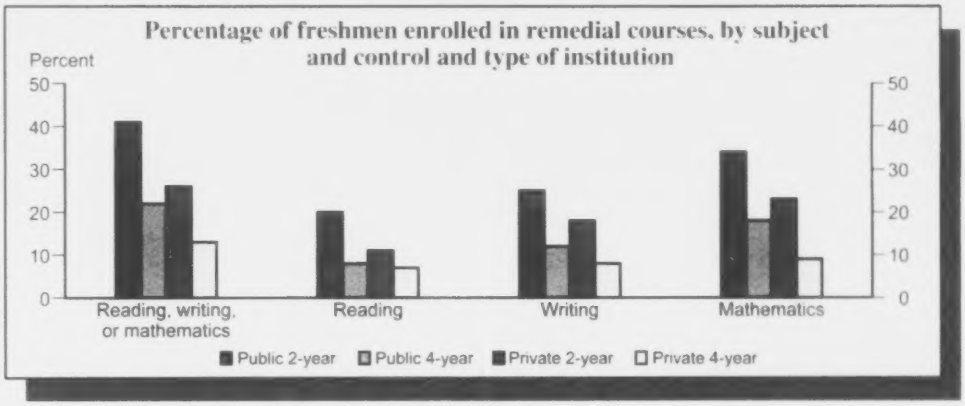
Percentage of higher education institutions offering remedial courses, by subject, control and type of institution, and minority enrollment: Fall 1989 and 1995

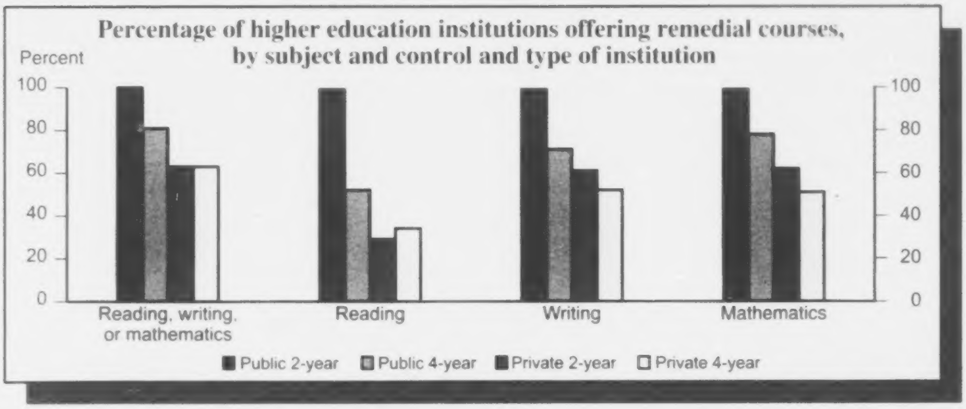
		Fall 1995						
	Fall		Public		Private		Minority enrollment*	
Subject	1989	Total	2-year	4-year	2-year	4-year	High	Low
Reading, writing, or mathematics	74	78	100	81	63	63	94	76
Reading	58	57	99	52	29	34	87	53
Writing	65	71	99	71	61	52	85	70
Mathematics	68	72	99	78	62	51	93	70

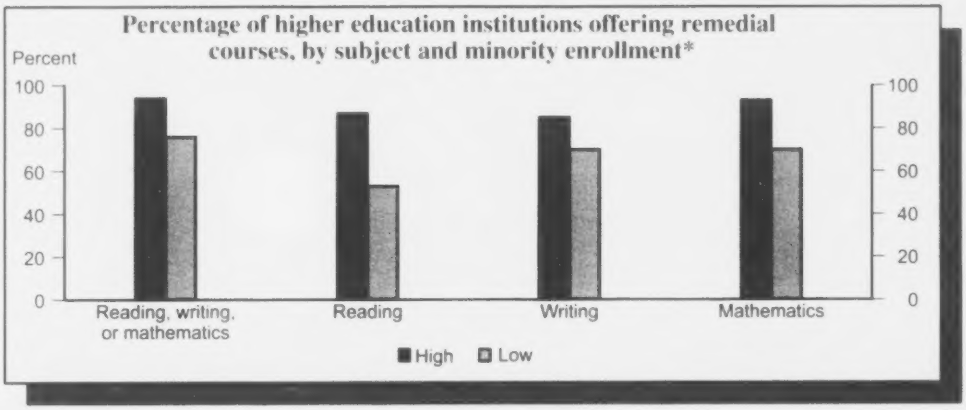
* Institutions with high minority enrollment are defined as those in which total student enrollment, excluding nonresident aliens, is less than 50 percent white.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Postsecondary Education Quick Information System, *Remedial Education at Higher Education Institutions in Fall 1995*, 1996.

Remedial education in higher education: Fall 1995


Percentage of freshmen enrolled in remedial courses, by subject and control and type of institution


Percentage of higher education institutions offering remedial courses, by subject and control and type of institution


Percentage of higher education institutions offering remedial courses, by subject and minority enrollment*

* Institutions with high minority enrollment are defined as those in which total student enrollment, excluding nonresident aliens, is less than 50 percent white.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Postsecondary Education Quick Information System, *Remedial Education at Higher Education Institutions in Fall 1995*, 1996.

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Instructional methods of postsecondary faculty

Postsecondary instructional faculty and staff use a variety of methods to instruct students, make classroom assignments, grade students' work, and test students' competency. There has been much debate about which instructional methods are most effective in educating students. One factor in determining the type of instructional methods postsecondary faculty use may be the program area of the particular class.

- In fall 1992, about one-third of all instructional faculty and staff used teaching tools such as computational tools/software and computer-aided instruction. Engineering faculty were more likely to use computational tools/software than faculty from other program areas.

- Sixty-three percent of postsecondary instructional faculty and staff assigned student presentations, and 53 percent assigned term or research papers in fall 1992. Compared with faculty in other progam areas, natural sciences and engineering faculty were less likely to use student presentations as an instructional method.

- In fall 1992, postsecondary instructional faculty and staff generally were more likely to use competency-based grading than to grade on a curve on a consistent basis across most program areas. However, engineering and natural sciences faculty were more likely to grade on a curve than education and humanities faculty.

- Fifty-seven percent of postsecondary instructional faculty and staff used essay midterms/finals in fall 1992. Humanities and social sciences faculty were more likely to use essay midterms/finals than engineering and natural sciences faculty.

Percentage of postsecondary instructional faculty and staff who used selected instructional methods* for undergraduate classes during the semester, by program area: Fall 1992

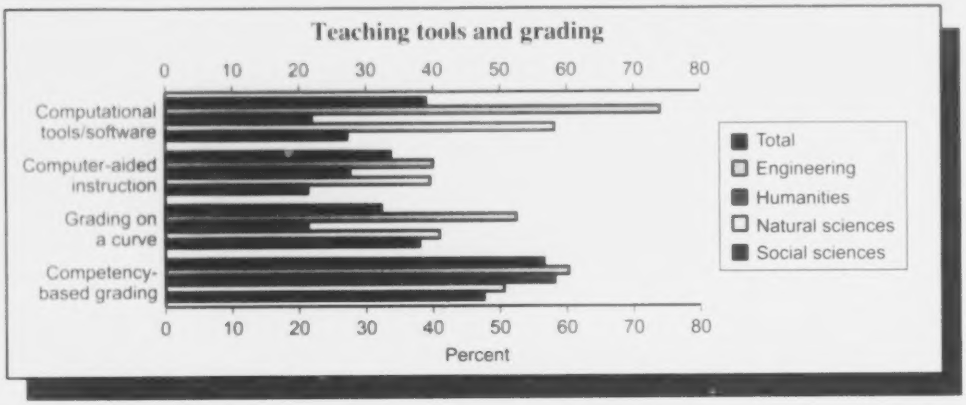
		Program area									
Instructional method	Total	Agriculture/ home economics	Business	Education	Engineering	Fine arts	Health sciences	Humanities	Natural sciences	Social sciences	Other
Teaching tools											
Computational tools/software	39.0	38.1	54.6	35.5	74.0	21.3	40.4	21.9	58.2	27.2	34.0
Computer-aided instruction	33.7	31.7	36.8	37.4	40.0	32.0	41.5	27.6	39.6	21.3	34.7
Grading											
Grading on a curve	32.3	47.8	38.8	18.7	52.5	26.7	23.4	21.3	41.0	38.0	33.5
Competency-based grading	56.6	45.2	49.9	62.9	60.3	69.1	64.7	58.2	50.6	47.6	60.2
Assignments											
Multiple drafts of written work	31.5	27.7	22.1	39.0	15.2	23.7	25.2	60.9	15.9	33.6	28.3
Student presentations	62.7	69.5	61.0	79.7	45.0	78.4	67.8	72.9	38.0	62.8	70.4
Student evaluations	37.1	32.2	29.4	55.9	21.5	62.4	34.1	53.9	17.7	25.3	41.0
Term/research papers	52.9	59.0	55.6	61.0	42.8	45.1	50.6	65.5	31.1	73.4	53.0
Midterms/finals											
Multiple choice	55.4	65.9	74.6	57.5	33.9	38.1	80.6	34.4	53.3	65.9	64.9
Short answer	54.6	74.2	58.7	53.2	54.7	48.3	43.3	50.2	63.3	49.7	59.5
Essay	56.8	69.2	54.8	64.3	34.9	49.1	34.2	79.3	41.8	72.2	57.4

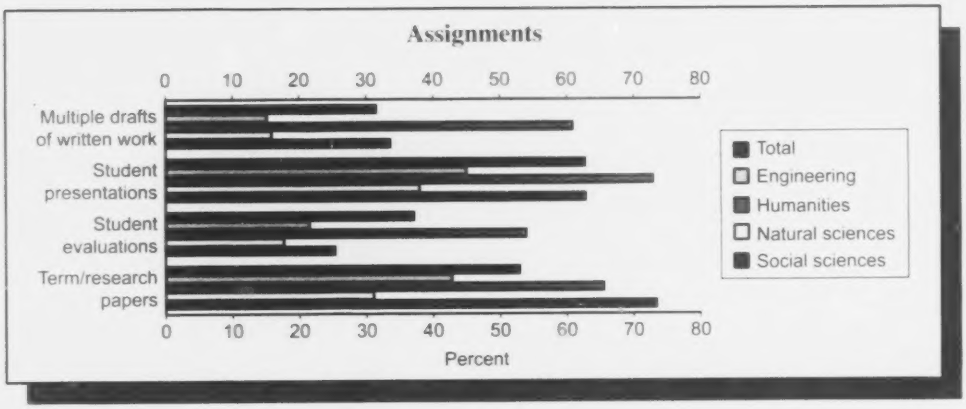
* Includes those faculty who responded that they used the indicated instructional method "some" or "all" of the time.

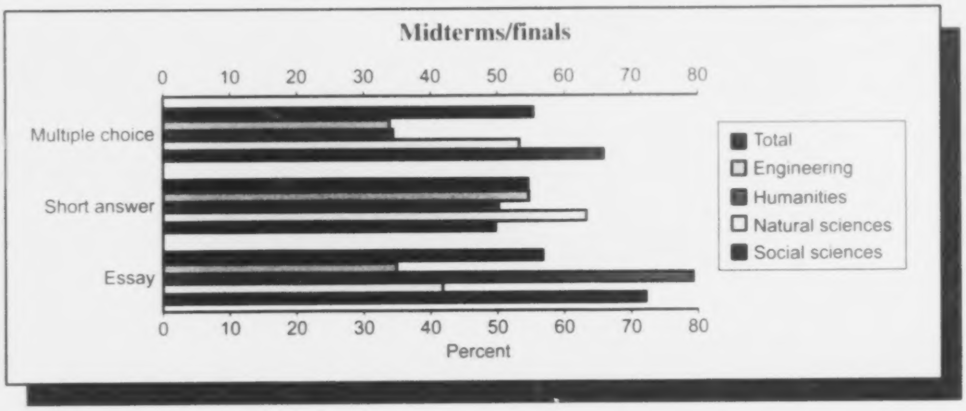
NOTE: See the supplemental note to this indicator for a definition of program areas.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Study of Postsecondary Faculty, 1993.

Percentage of postsecondary instructional faculty and staff who used selected instructional methods* for undergraduate classes during the semester, by selected program areas: Fall 1992







* Includes those faculty who responded that they used the indicated instructional method "some" or "all" of the time.

NOTE: See the supplemental note to this indicator for a definition of program areas.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Study of Postsecondary Faculty, 1993.

Distance education in higher education

Advances in technology and widespread access to this technology allow many educational institutions to offer courses to students who would otherwise have difficulty participating in higher education (students who work, students who care for families, students who live in remote areas) without being present on campus. This type of education, commonly referred to as "distance education," is an increasingly important component of higher education. Examining the availability and use of distance education can help educators assess the need for these services.

- In 1995, one-third of higher education institutions offered distance education courses; another 25 percent indicated plans to begin courses within 3 years; and 42 percent did not offer and did not plan to offer these courses in the next 3 years. Higher education institutions in the Northeast were less likely than institutions in other regions to offer distance education courses in 1995, and institutions with larger enrollments were more likely to offer distance education courses than schools with smaller enrollments.

- Public institutions were more likely to offer distance education courses than private institutions, and more students enrolled in these courses in 1995 were enrolled in public 2-year institutions than in other types of institutions (see supplemental table 31-1). Public 4-year institutions were, however, more likely than public 2-year institutions to offer and award degrees and certificates that could be earned by taking only distance education courses (see supplemental table 31-2).

- In 1995, two-way interactive video and one-way prerecorded video were the most frequently used methods of delivering distance education courses (57 and 52 percent, respectively). Furthermore, of higher education institutions who currently were offering or planning to offer distance education, about 80 percent were planning to start or increase the use of two-way interactive video, and about half were planning to start or increase the use of one-way prerecorded video in the next 3 years (see supplemental table 31-3).

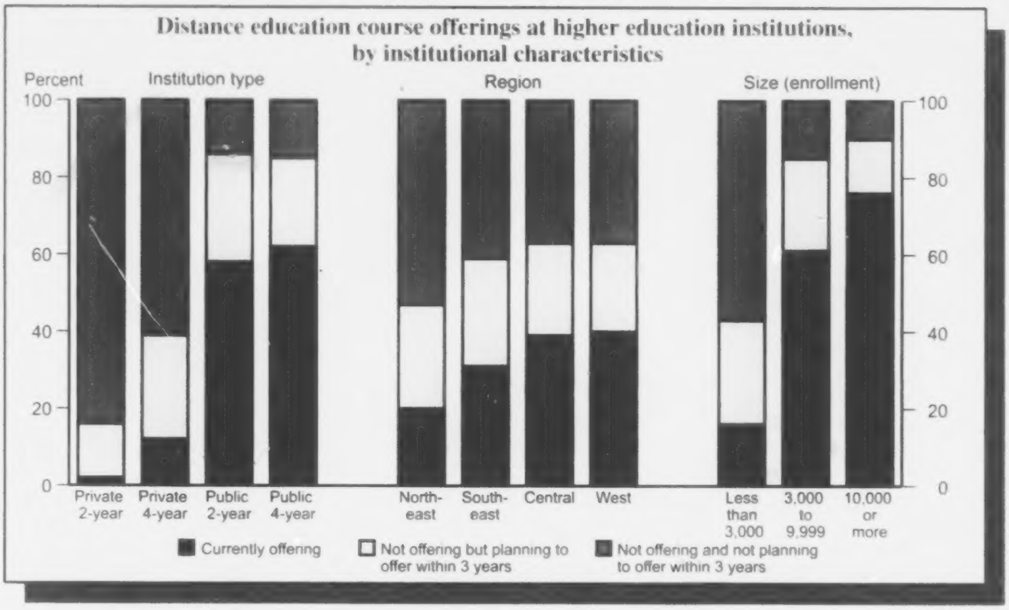
Percentage distribution of higher education institutions according to status of offering distance education, by selected institutional characteristics: 1995

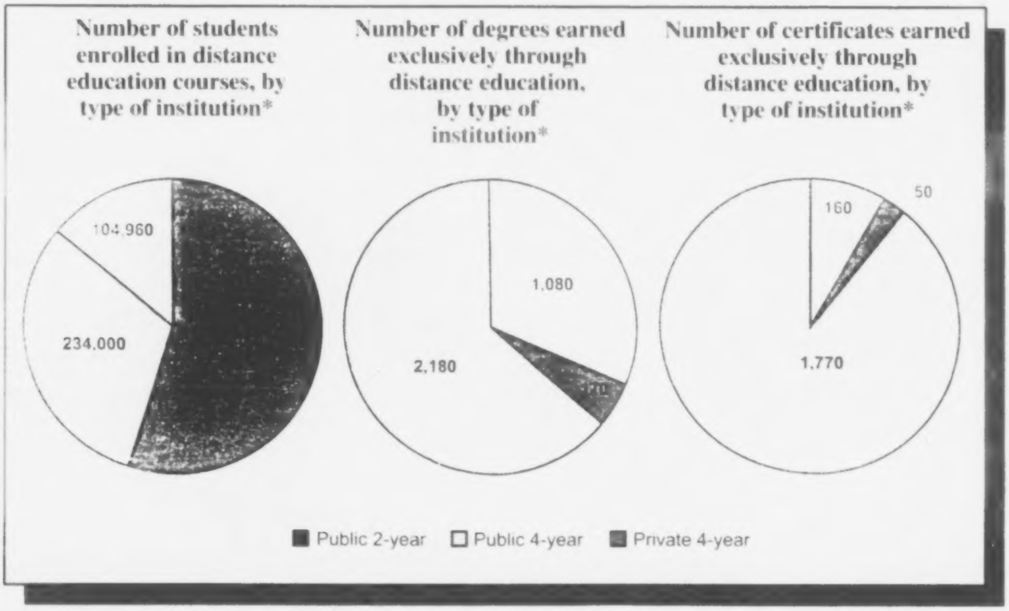
Selected institutional characteristics	Currently offering distance education courses	Not currently offering distance education courses: Planning to offer distance education courses in the next 3 years	Not currently offering distance education courses: Not planning to offer distance education courses in the next 3 years
All institutions	**33**	**25**	**42**
Institution type			
Private 2-year	2	14	84
Private 4-year	12	27	61
Public 2-year	58	28	14
Public 4-year	62	23	14
Region			
Northeast	20	27	53
Southeast	31	28	41
Central	39	24	37
West	40	23	37
Size of institution (enrollment)			
Less than 3,000	16	27	56
3,000–9,999	61	24	15
10,000 or more	76	14	10

NOTE: Details may not add to 100 due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Postsecondary Education Quick Information System, *Distance Education in Higher Education Institutions*, 1997.

Distance education in higher education: 1995


Distance education course offerings at higher education institutions, by institutional characteristics


Number of students enrolled in distance education courses, by type of institution*

Number of degrees earned exclusively through distance education, by type of institution*

Number of certificates earned exclusively through distance education, by type of institution*

* Data for private 2-year institutions are not included because too few of them offered distance education in fall 1995 for a reliable estimate.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Postsecondary Education Quick Information System, *Distance Education in Higher Education Institutions*, 1997.

Part-time instructional faculty and staff at postsecondary institutions

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Part-time faculty provide postsecondary institutions with a flexible work force to respond to fluctuating student enrollments, to fill temporary vacancies, to teach specialized courses, and to reduce faculty costs. While many faculty work part time out of choice, these individuals face job uncertainty, often play no role in academic governance, and lack job benefits provided to full-time faculty. These issues, which are accentuated by an increasing use of part-time instructional faculty, may affect faculty morale and the quality of teaching at postsecondary institutions.

- In fall 1992, 42 percent of postsecondary instructional faculty and staff worked part time.
- Instructors and lecturers were more likely to be employed part time than faculty with higher academic ranks in fall 1992.
- Postsecondary instructional faculty and staff at 2-year institutions were more likely to be employed part time in fall 1992 than faculty at all other types of postsecondary institutions.
- In fall 1992, females were more likely than males to work part time at both public and private institutions, and at each type of postsecondary institution, except 2-year and other institutions.

Percentage of postsecondary instructional faculty and staff employed part time, by control and type of institution, sex, and academic rank: Fall 1992

Sex and academic rank	Total	Control of institution		Type of institution					
		Public	Private	Research	Doctoral	Compre-hensive	Liberal arts	2-year	Other
Total[1]	**41.6**	**41.4**	**42.2**	**23.4**	**32.6**	**38.6**	**35.7**	**60.2**	**37.8**
Sex									
Male	37.2	37.0	37.7	19.0	27.4	33.3	29.8	60.8	35.0
Female	48.9	48.5	49.9	34.1	43.2	46.7	43.3	59.4	45.0
Academic rank									
Full professor	16.7	11.7	27.1	10.3	13.9	16.9	17.8	25.1	29.1
Associate professor	15.4	13.3	19.6	16.6	11.0	9.5	9.4	22.2	28.9
Assistant professor	16.3	13.2	21.3	14.8	13.0	11.2	17.0	24.5	27.2
Instructor	74.5	73.3	78.9	65.9	73.8	78.2	75.8	74.7	66.2
Lecturer	79.3	78.1	81.3	59.6	81.6	85.6	80.4	95.1	82.2
Average number of classes taught[2]									
Total	1.8	1.8	1.7	1.7	1.6	1.7	1.8	1.8	1.8
Undergraduate	1.8	1.8	1.7	1.7	1.6	1.7	1.8	1.8	1.8
Graduate	1.4	1.4	1.4	1.4	1.4	1.4	1.3	1.5	1.4

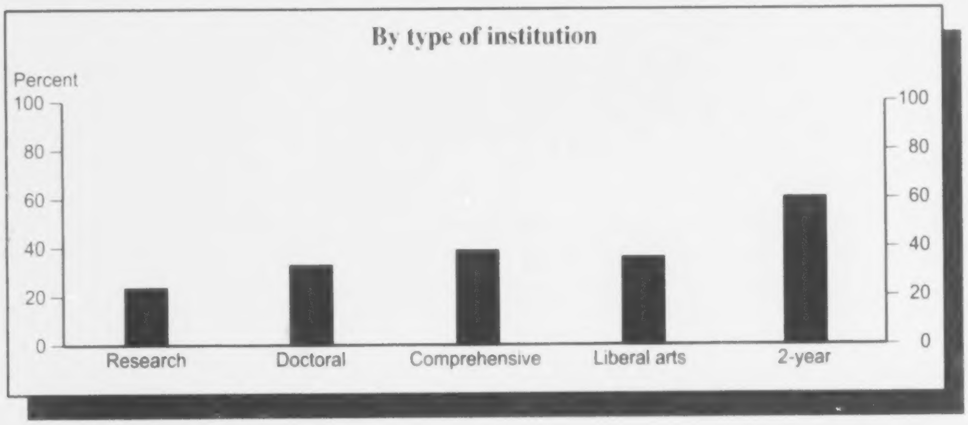
[1] Included in the total but not shown separately are other academic ranks and those with no academic rank.

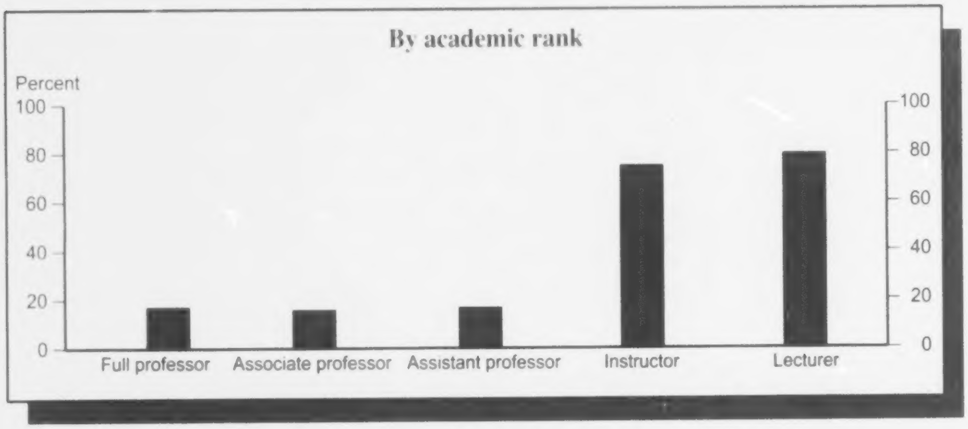
[2] Includes only classes taught for credit. Only teachers who reported teaching at least 1 class for credit regardless of class level (undergraduate or graduate) were included in the analysis.

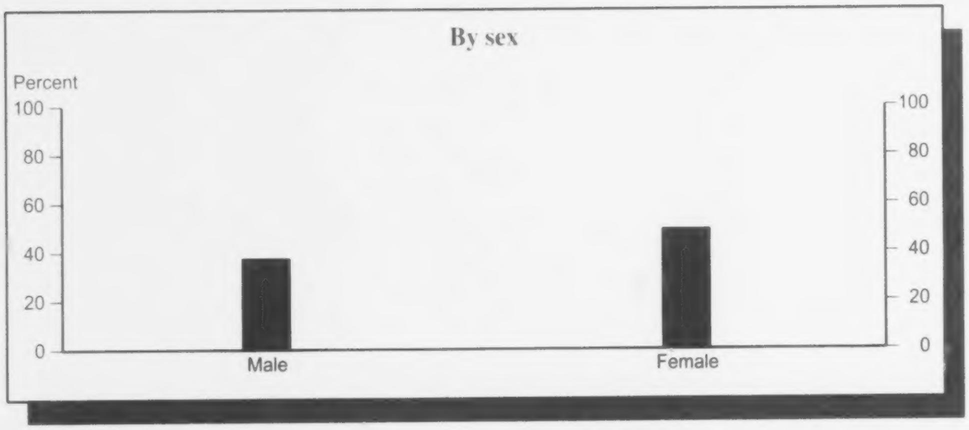
NOTE: See the supplemental note to this indicator for a description of types of institutions.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Study of Postsecondary Faculty, 1993.

Percentage of postsecondary instructional faculty and staff employed part time: Fall 1992







NOTE: See the supplemental note to this indicator for a description of types of institutions.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Study of Postsecondary Faculty, 1993.

Teaching workload of full-time postsecondary faculty

Teaching students is only one aspect of a postsecondary faculty member's job. Faculty also spend time on other activities such as research, freelance work, administrative tasks, and professional growth. Debates about tenure, instructional time, and the overall quality of a college education raise questions about the actual time postsecondary faculty spend teaching relative to the time they spend doing other activities.

- In 1992, full-time faculty members spent 54 percent of their work hours performing teaching activities, 18 percent conducting research, and 13 percent performing administrative tasks.

- Between 1987 and 1992, the percentage of time full-time postsecondary faculty members spent on teaching activities decreased (from 57 to 54 percent); however, the number of classroom and student contact hours per week increased (see supplemental table 33-1).

- Full, associate, and assistant professors tended to spend a higher percentage of their time conducting research than did other faculty in 1992. Assistant professors, instructors, and lecturers spent a higher proportion of their time performing teaching activities than did full or associate professors.

- Full-time postsecondary faculty members at 2-year institutions had more student contact hours per week in 1992 than did faculty at other institutions (87 percent more than those at liberal arts institutions and 67 percent more than those at research institutions; see supplemental table 33-1).

Percentage of time full-time postsecondary faculty spent on various activities, by academic rank and type of institution: Fall 1987 and fall 1992

		Academic rank					Type of institution				
Activity	Total[1]	Full professor	Associate professor	Assistant professor	Instructor	Lecturer	Research	Doc-tor's	Compre-hensive	Liberal arts	2-year
						Fall 1987					
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Teaching activities[2]	57.1	51.3	54.2	57.4	70.1	69.3	43.3	54.1	63.5	67.1	73.1
Research/scholarship	17.3	21.1	20.3	19.0	5.9	9.5	30.3	21.9	12.0	10.2	4.2
Professional growth	4.6	3.7	4.5	4.2	7.0	5.5	4.1	4.1	4.4	4.3	5.2
Administration	13.2	16.4	13.3	10.3	9.9	8.9	13.7	13.5	13.2	13.8	11.0
Outside consulting/ freelance work	2.5	2.8	2.6	1.8	2.7	3.6	2.5	3.1	2.8	1.6	2.5
Service and other	5.4	4.8	5.1	7.4	4.4	3.2	6.4	3.3	4.2	3.0	4.0
						Fall 1992					
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Teaching activities[2]	54.4	50.2	52.3	55.3	67.8	61.1	39.0	46.0	60.2	63.6	68.7
Research/scholarship	17.6	21.5	19.4	19.7	6.0	10.2	32.4	23.0	13.3	9.7	4.5
Professional growth	4.6	4.1	4.4	4.5	5.7	5.5	3.6	4.2	5.0	4.6	5.8
Administration	13.1	15.1	13.6	9.3	10.4	12.8	12.9	14.1	12.7	14.6	12.1
Outside consulting/ freelance work	2.7	3.0	2.9	2.1	2.6	2.3	2.6	2.6	2.8	2.3	2.7
Service and other	7.4	6.0	7.1	8.9	7.5	8.1	9.3	10.1	6.0	4.9	6.1

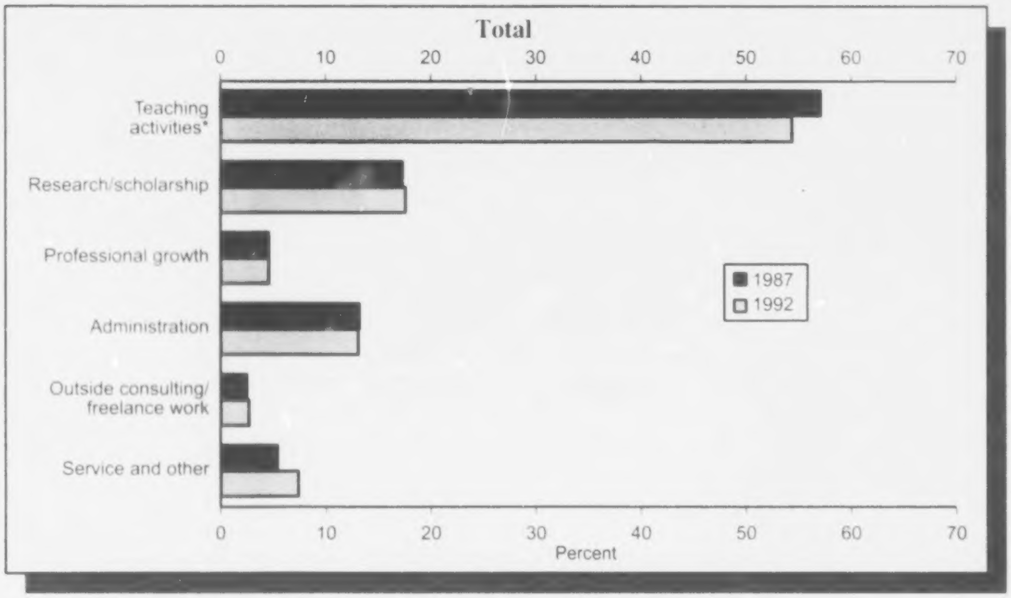
[1] Included in the total but not shown separately are other academic ranks and types of postsecondary institutions.

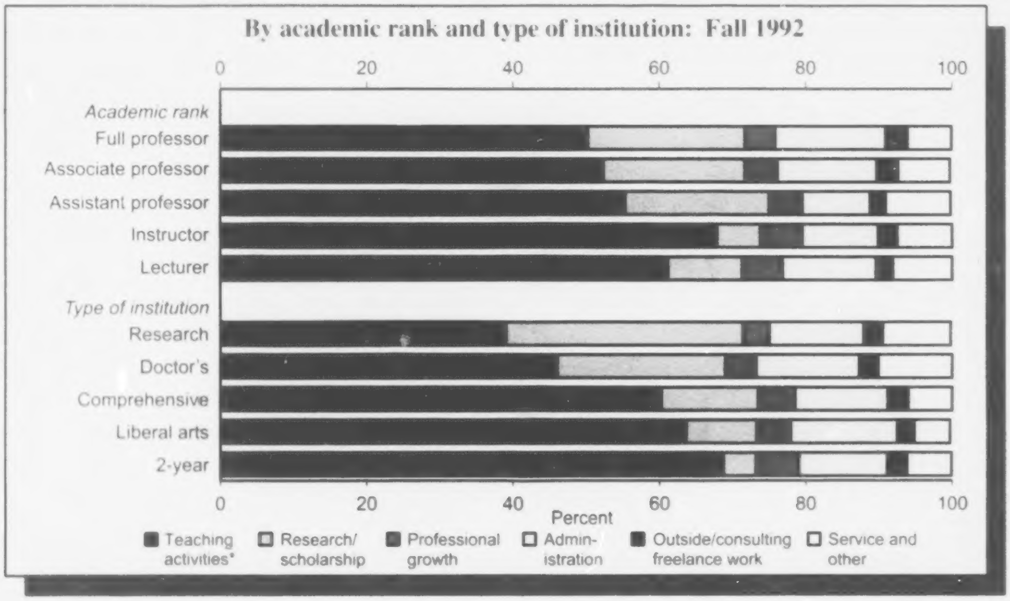
[2] Includes other activities in addition to teaching in the classroom such as grading papers, preparing for class, developing new curricula, advising or supervising students, or working with student organizations or intramural athletics.

NOTE: Details may not add to 100.0 due to rounding. See the supplemental note to this indicator for further definitions of time spent by faculty.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Study of Postsecondary Faculty, 1988 and 1993.

Percentage of time full-time postsecondary faculty spent on various activities: Fall 1987 and fall 1992





* Includes other activities in addition to teaching in the classroom such as grading papers, preparing for class, developing new curricula, advising or supervising students, or working with student organizations or intramural athletics.

NOTE: See the supplemental note to this indicator for further definitions of time spent by faculty.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Study of Postsecondary Faculty, 1988 and 1993.

Section IV. Social Support for Learning

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Early reading activities in the home

Family participation in reading activities provides valuable developmental experiences for young children. In addition to developing an interest in reading, children who are read to, told stories, and visit the library may start school better prepared to learn than other students. Engaging young children in reading activities at home also enables parents and other family members to become actively involved in their children's education at an early age.

- In 1996, at least 80 percent of children ages 3–5 were read to or told a story in the past week by a parent or family member, while 38 percent had visited a library in the past month. The percentage of children who were read to or told a story was higher in 1996 than in 1991.

- Children ages 3–5 who were not enrolled in preprimary education were usually as likely to have been read to or told a story by a parent or family member in the past week as those 3- to 5-year-olds who were enrolled in kindergarten or center-based care in 1996. However, children ages 3–5 who were not enrolled in preprimary education were less likely to have visited a library in the past month than children who were enrolled in kindergarten or a center-based program.

- In 1996, white children ages 3–5 were more likely than their black and Hispanic peers to have been read to in the past week and were more likely than their black peers to have been told a story in the past week. In addition, white children were more likely to have visited a library in the past month than their black and Hispanic peers.

- In 1996, children ages 3–5 whose parents had completed a bachelor's degree or more education were more likely to have been read to in the past week or to have visited a library in the past month than children whose parents' highest education level was a high school diploma or less.

Percentage of children ages 3–5 who participated in various reading activities with a parent or family member, by selected characteristics: 1991, 1993, 1995, and 1996

	Read to three or more times in the past week				Told a story at least once in the past week				Visited a library in the past month			
Selected characteristics	1991	1993	1995	1996	1991	1993	1995	1996	1991	1993	1995	1996
Total	**71.4**	**77.7**	**83.1**	**82.9**	**72.0**	**74.7**	**81.4**	**82.0**	**36.6**	**38.8**	**41.2**	**38.2**
School enrollment status and level[1]												
Not enrolled	68.9	75.5	81.3	80.0	72.7	73.6	79.7	80.2	29.3	32.8	32.9	31.8
Center-based programs[2]	73.9	80.8	85.6	84.6	73.4	77.3	82.9	83.4	40.0	42.4	44.2	41.1
Kindergarten[2]	71.3	75.9	80.8	83.8	69.1	72.2	80.9	81.9	40.8	41.6	46.0	42.1
Race–ethnicity												
White	77.7	84.0	89.0	88.9	73.8	75.6	83.9	83.9	40.7	42.1	45.1	42.5
Black	59.0	66.8	73.7	75.9	66.0	72.2	74.4	76.6	27.8	32.0	34.1	34.1
Hispanic	53.0	60.2	61.5	65.3	68.4	71.5	75.1	79.3	24.5	27.9	28.0	25.9
Other	65.8	70.8	85.2	87.4	74.2	78.5	80.8	84.3	34.8	43.3	41.5	37.1
Parents' highest education level												
Less than high school diploma	53.8	54.5	64.4	58.8	67.4	65.3	71.9	72.8	18.3	24.6	18.3	19.4
High school diploma or GED	63.5	73.1	77.9	77.4	68.2	73.6	77.6	79.9	26.0	28.2	31.5	30.1
Some college/vocational/technical	74.0	80.4	85.3	86.5	74.2	74.7	82.9	84.6	38.5	39.6	40.9	37.1
Bachelor's degree	82.1	87.7	89.7	90.9	74.7	77.4	85.0	83.2	52.0	53.9	53.5	51.9
Graduate/professional school	86.3	88.4	94.0	96.1	78.4	81.1	88.2	85.8	59.1	59.5	62.8	59.5

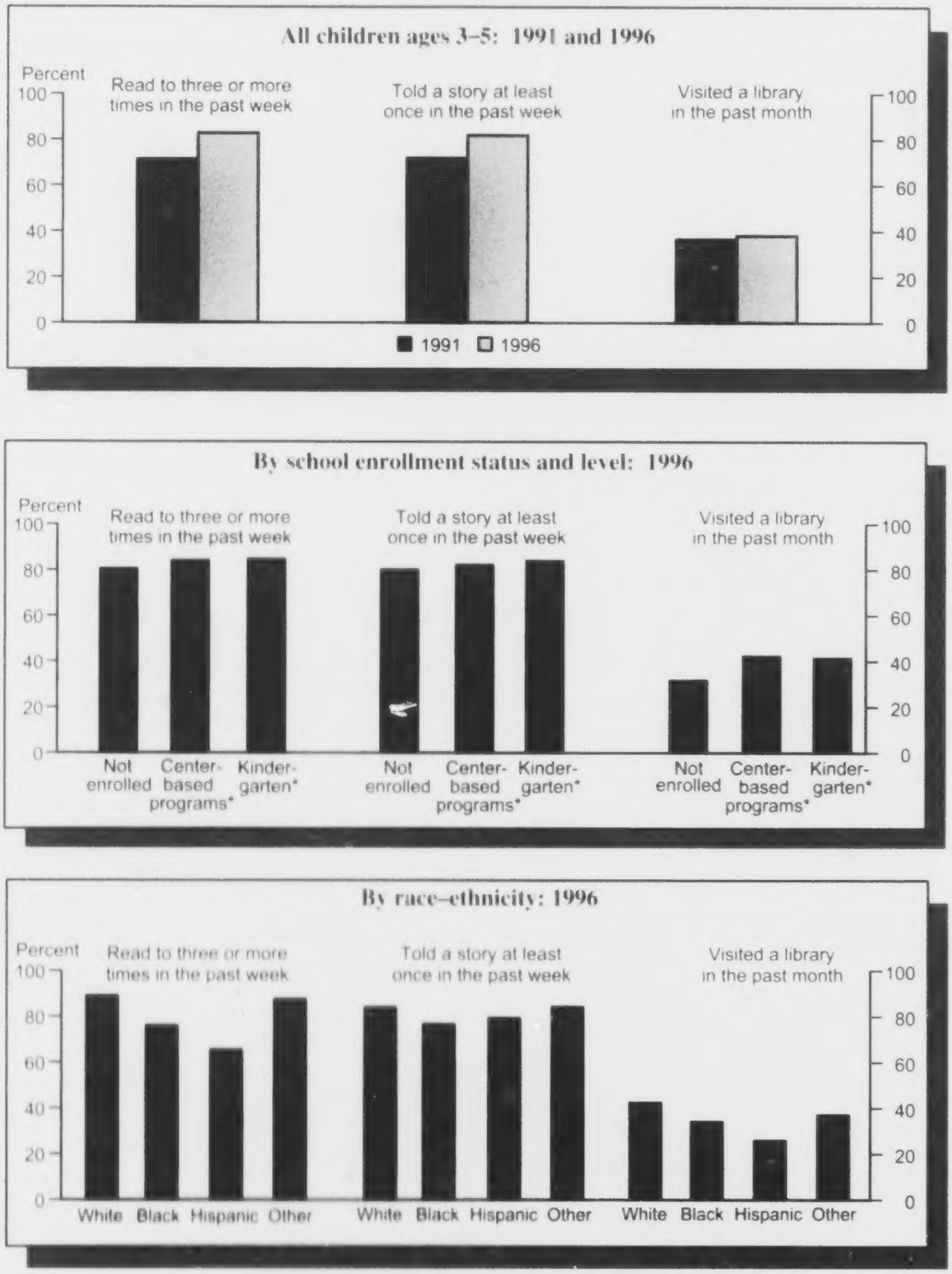
[1] Data are revised from previously published figures.

[2] See the glossary for definitions of center-based programs and kindergarten.

NOTE: This analysis includes children ages 3–5 who were not enrolled in first grade. Included in the total but not shown separately are children from other types of enrollment levels.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), 1991 (Early Childhood Education File), 1993 (School Readiness File), 1995 (Early Childhood Program Participation File), and 1996 (Parent and Family Involvement in Education File).

Percentage of children ages 3–5 who participated in various reading activities with a parent or family member



All children ages 3–5: 1991 and 1996

By school enrollment status and level: 1996

By race–ethnicity: 1996

* See the glossary for definitions of center-based programs and kindergarten.

NOTE: This analysis includes children ages 3–5 who were not enrolled in first grade.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), 1991 (Early Childhood Education File) and 1996 (Parent and Family Involvement in Education File).

Fathers' involvement in their children's education

Although most research on parental involvement has focused on mothers' roles in their children's education, current research indicates that fathers' involvement in their children's education also has a positive effect on student achievement and success in school. The role fathers assume in their children's education has become the subject of increasing interest to researchers and policymakers because single and nonresident fathers have become more common and higher proportions of mothers have entered the labor force.

- Fathers in two-parent families, single fathers, and nonresident fathers were all more likely to attend a class event, a parent–teacher conference, or a general school meeting in 1996 than they were to volunteer in their children's schools.
- Fathers in single-parent families were more likely to have a high level of involvement in their children's schools than were fathers in two-parent families and nonresident fathers. Nearly half of fathers in two-parent families had a low level of involvement in their children's schools, as did a large majority of nonresident fathers.
- Children of fathers with high levels of involvement in their schools were generally more likely than children of fathers with low levels of involvement to have positive school outcomes. For example, children of fathers with high levels of involvement were more likely to enjoy school and less likely to be expelled or suspended than were children of fathers with low levels of involvement.

Percentage of students in grades K–12 whose fathers were involved in their schools during the current school year, by type of activity and family type: 1996

	Level of involvement[1]		Type of activity			
Family type	High	Low	Volunteered	Attended class event	Attended parent-teacher conference	Attended general school meeting
Fathers in two-parent families	26.8	47.8	15.4	52.9	38.7	55.3
Fathers in single-parent families	46.1	28.4	23.3	64.8	63.9	68.3
Nonresident fathers[2]	8.7	82.5	4.0	22.0	15.0	18.0

Percentage of students in grades K–12 with selected school outcomes during the current school year, by family type and level of fathers' involvement in child's school: 1996

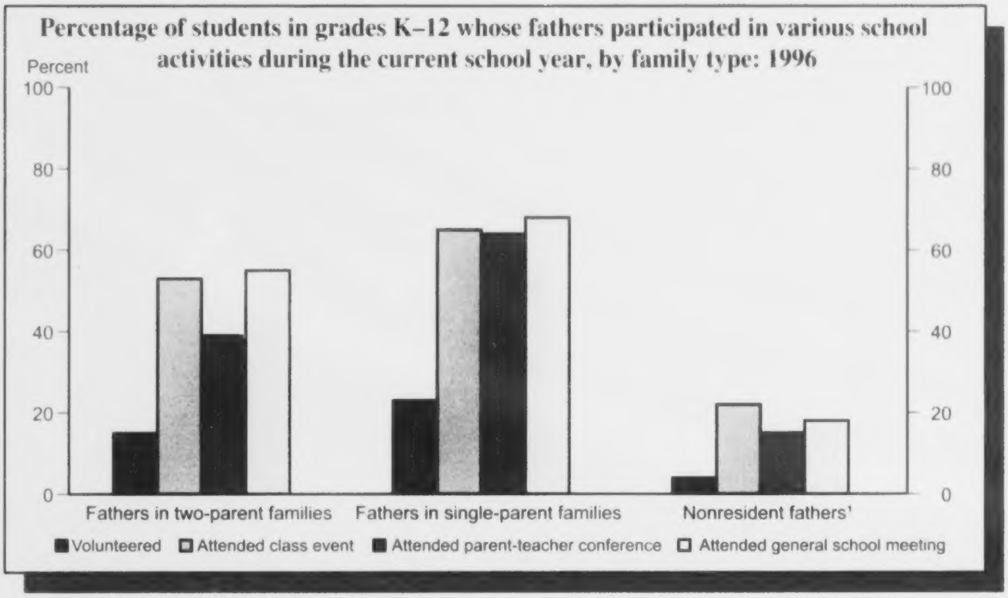
			Child participated in extracurricular activities			
Family type and level of fathers' involvement[1]	Child gets mostly A's (Grades 1–12)	Child enjoys school (Grades 1–12)	Grades K–5	Grades 6–12	Child has repeated a grade (Grades K–12)	Child has ever been expelled/suspended (Grades 6–12)
Fathers in two-parent families						
Low involvement	34.1	33.0	73.7	79.3	14.8	17.7
High involvement	50.4	49.8	90.6	94.5	6.7	9.8
Fathers in single-parent families						
Low involvement	16.6	29.8	60.7	68.6	17.9	34.5
High involvement	31.7	43.9	79.1	86.3	13.3	11.4
Nonresident fathers[2]						
Low involvement	29.1	34.7	73.5	75.5	18.1	27.8
High involvement	35.2	44.8	86.6	92.0	7.2	14.4

[1] Low involvement is defined as participation in none or only one activity out of four; high involvement is defined as participation in three or four activities.

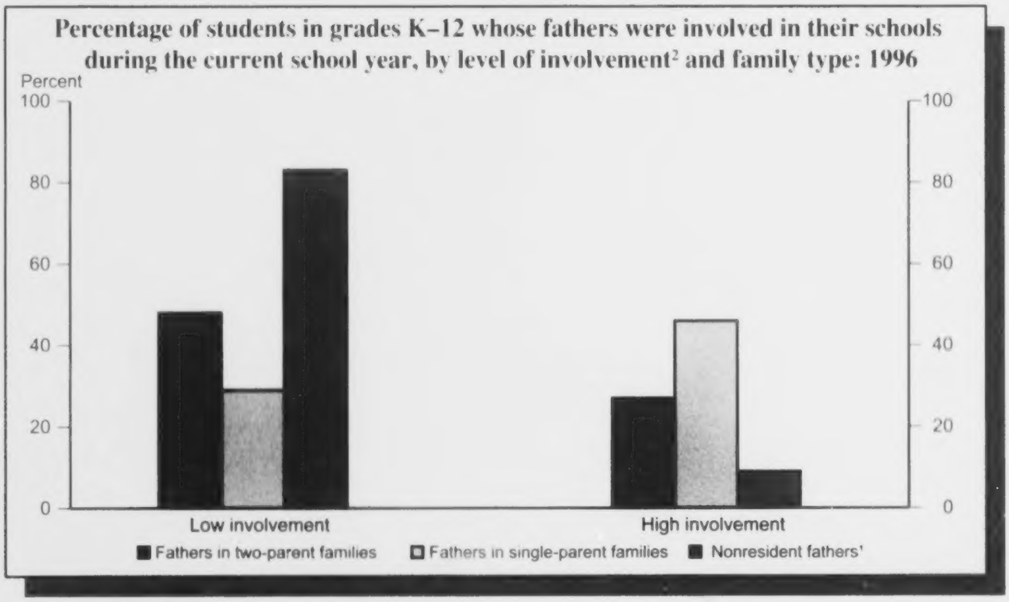
[2] These percentages represent the 75 percent of all nonresident fathers who were reported to have had contact with their children within the past year.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey, 1996 (Parent and Family Involvement in Education and Civic Involvement Components).

Fathers' involvement in their children's education: 1996



Percentage of students in grades K–12 whose fathers participated in various school activities during the current school year, by family type: 1996



Percentage of students in grades K–12 whose fathers were involved in their schools during the current school year, by level of involvement[2] and family type: 1996

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[1] These percentages represent the 75 percent of all nonresident fathers who were reported to have had contact with their children within the past year.

[2] Low involvement is defined as participation in none or only one activity out of four; high involvement is defined as participation in three or four activities.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey, 1996 (Parent and Family Involvement in Education and Civic Involvement Components).

Family characteristics of 6- to 12-year-olds

The family environment in which a child lives affects many aspects of that child's life, including school performance. For example, research has shown that family characteristics, such as parents' educational attainment, number of children in the family, family income, and mother's employment status, are related to student achievement. Data on such family characteristics may help policymakers and educators to apply resources efficiently and to develop programs designed to increase learning.

- The educational attainment of parents of 6- to 12-year-olds increased substantially between 1972 and 1997. For example, the percentage whose mothers completed at least high school increased from 66 to 84 percent, while the percentage whose fathers completed at least high school rose from 65 to 85 percent (see supplemental table 36-1).

- The employment rate of mothers of 6- to 12-year-olds increased between 1972 and 1997, rising from 39 percent in 1972 to 66 percent in 1997. The employment rate of fathers decreased slightly from 93 percent in 1972 to 91 percent in 1997. Despite the increase in mothers' employment, median family income (in constant 1997 dollars) remained relatively stable between 1972 and 1992 and increased between 1992 and 1997 (see supplemental table 36-1).

- The percentage of 6- to 12-year-olds who lived with only their mother doubled between 1972 and 1997, increasing from 12 to 24 percent. Conversely, the percentage who lived with two parents decreased from 87 to 71 percent during the same period.

- In 1997, 6- to 12-year-olds had fewer other children in their household than their peers in 1972. For example, in 1972, 71 percent of 6- to 12-year-olds had two or more brothers or sisters, compared with 46 percent in 1997.

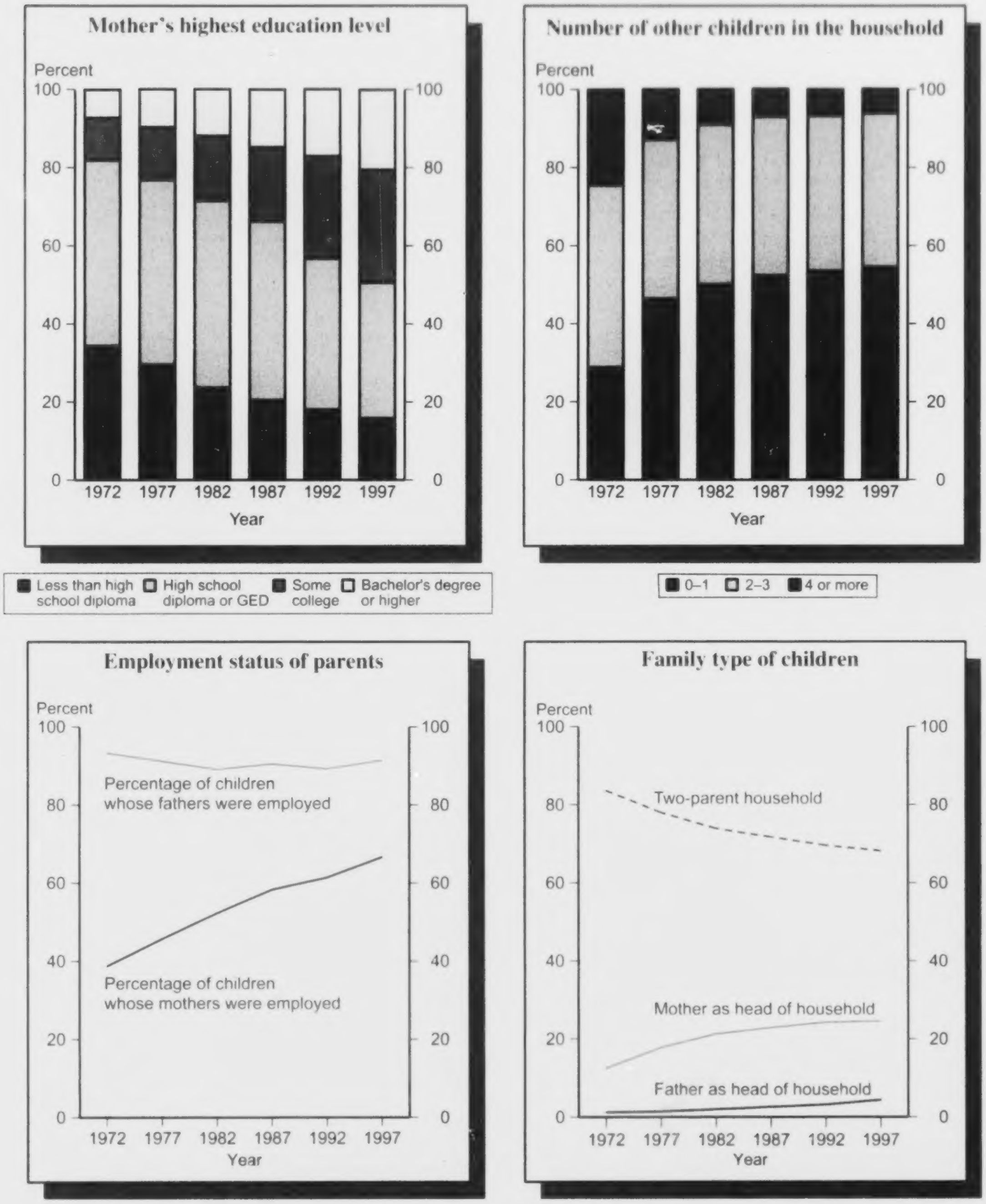
Percentage distribution of 6- to 12-year-olds, by selected family characteristics: 1972–97

Selected family characteristics	1972	1977	1982	1987	1992	1997
Mother's highest education level						
Less than high school diploma	34.3	29.5	23.6	20.4	18.0	15.8
High school diploma or GED	47.6	47.4	48.0	45.9	38.8	34.8
Some college	10.8	13.4	16.5	18.9	26.1	28.8
Bachelor's degree or higher	7.2	9.8	12.0	14.8	17.2	20.5
Percentage of children whose mothers were employed	38.5	45.5	52.1	58.1	61.2	66.4
Percentage of children whose fathers were employed	93.1	91.0	88.9	90.3	89.1	91.2
Family type						
Two-parent household	86.8	81.2	77.1	74.9	72.8	71.4
Father as head of household	1.0	1.2	1.8	2.4	3.0	4.2
Mother as head of household	12.3	17.6	21.1	22.7	24.1	24.4
Number of other children in household						
0–1	28.8	46.4	50.1	52.3	53.5	54.5
2–3	46.7	40.8	41.0	40.8	39.8	39.5
4 or more	24.4	12.8	8.9	7.0	6.7	6.1

NOTE: The Current Population Survey (CPS) questions used to obtain educational attainment were changed in 1992. See the supplemental note to *Indicator 59* for further discussion. Information on parents' educational attainment, employment status, or age of mother at child's birth is available only for those parents who live in the same household with their child. See the supplemental note to this indicator for further discussion on how the data were calculated. In 1994, the survey instrument for the CPS was changed and weights were adjusted. See the supplemental note to *Indicator 51* for further discussion. Percentages for employment status were based on the total population, not just those in the labor force. Details may not add to 100.0 due to rounding.

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

Percentage distribution of 6- to 12-year-olds, by family characteristics: 1972–97



NOTE: The Current Population Survey (CPS) questions used to obtain educational attainment were changed in 1992. See the supplemental note to *Indicator 59* for further discussion. Information on parents' educational attainment, employment status, or age of mother at child's birth is available only for those parents who live in the same household with their child. See the supplemental note to this indicator for further discussion on how the data were calculated. In 1994, the survey instrument for the CPS was changed and weights were adjusted. See the supplemental note to *Indicator 51* for further discussion. Percentages for employment status were based on the total population, not just those in the labor force.

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

National indicators of public investment in education

The level of public investment in education can be measured in several ways. The national index of public effort is revenue raised for the education of students relative to the income of taxpayers adjusted for the number of students and the total population. The numerator measures average financial resources available for the education of each student. The denominator measures the taxpayer's average ability to pay. The index is the number of dollars of revenue raised for each student from each $100 of income received by each member of the population.

- In 1996, the national effort index for elementary and secondary education was 23.5, a slight decrease after a 3.2 point increase between 1982 and 1994.
- The national effort index for higher education was 20.6 in 1996, 10.7 points below the high in 1966 (see supplemental table 37-1). However, higher education public revenues per student have been relatively stable since 1970, except for a drop in the early 1980s.
- After remaining relatively stable during the 1980s, elementary and secondary public education revenue as a percentage of Gross Domestic Product (GDP) rose between 1988 and 1992, but did not rebound to the level of the early to mid-1970s. Higher education revenue as a percentage of GDP has remained about 1 percent since 1970.

National effort index and other indicators of public effort to fund education (in constant 1998 dollars), by level: School years ending 1930–96

						Revenues as a percentage of			
School	National effort index[1]		Revenues per student[2]		Per capita	GDP[3]		Personal income	
year ending	Elementary/ secondary	Higher education	Elementary/ secondary	Higher education	personal income[2]	Elementary/ secondary	Higher education	Elementary/ secondary	Higher education
1930[4]	10.5	22.5	$696	$1,490	$6,609	2.0	0.2	2.4	0.2
1940[4]	13.4	24.0	933	1,671	6,958	2.2	0.2	2.9	0.3
1950	13.7	28.8	1,303	2,745	9,536	2.0	0.4	2.6	0.5
1960	15.5	30.4	1,986	3,881	12,784	2.9	0.5	3.6	0.6
1970	19.5	31.1	3,376	5,390	17,340	4.1	1.0	4.5	1.0
1972	20.6	27.6	3,832	5,128	18,561	4.4	1.0	4.9	1.2
1974	21.1	26.5	4,003	5,034	18,968	4.2	1.1	5.0	1.2
1976	22.0	25.5	4,253	4,940	19,355	4.4	1.2	5.1	1.2
1978	20.8	24.2	4,316	5,004	20,716	4.0	1.1	4.8	1.2
1980	21.5	23.5	4,326	4,742	20,153	3.8	1.1	5.0	1.2
1982	20.8	21.9	4,157	4,384	20,009	3.5	1.0	5.0	1.3
1984	20.7	20.9	4,453	4,492	21,506	3.6	1.0	5.0	1.3
1986	21.7	23.0	4,927	5,212	22,697	3.6	1.0	4.8	1.3
1988	21.4	21.5	5,203	5,225	24,290	3.6	1.0	4.6	1.2
1990	23.9	21.3	5,786	5,161	24,191	3.8	1.0	4.5	1.2
1992	24.0	20.4	5,809	4,929	24,169	4.0	1.0	4.4	1.2
1994	24.0	20.6	5,880	5,043	24,538	4.0	1.0	4.3	1.2
1996	23.5	20.6	5,968	5,223	25,376	4.0	1.0	4.1	1.2

[1] Revenues per student divided by per capita personal income. Revised from previously published figures.

[2] For the calendar year in which the school year ended. In constant 1998 dollars, adjusted by the Consumer Price Index (CPI).

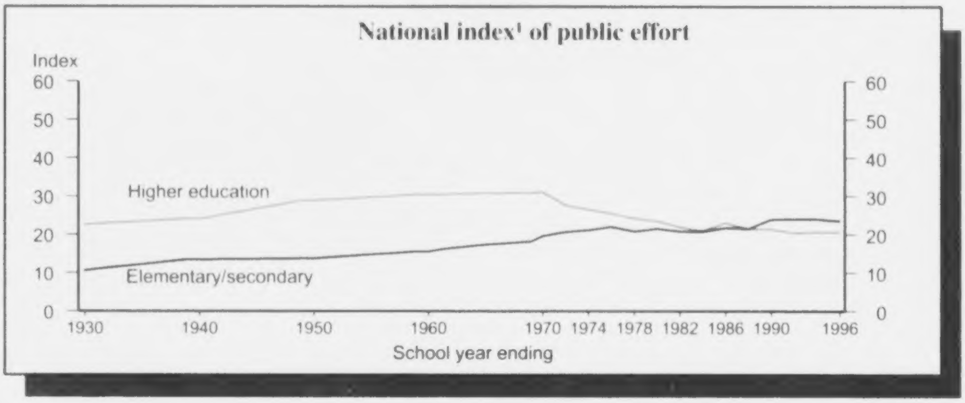
[3] Gross Domestic Product (GDP) is Gross National Product (GNP) less net property income from abroad for the calendar year in which the school year began.

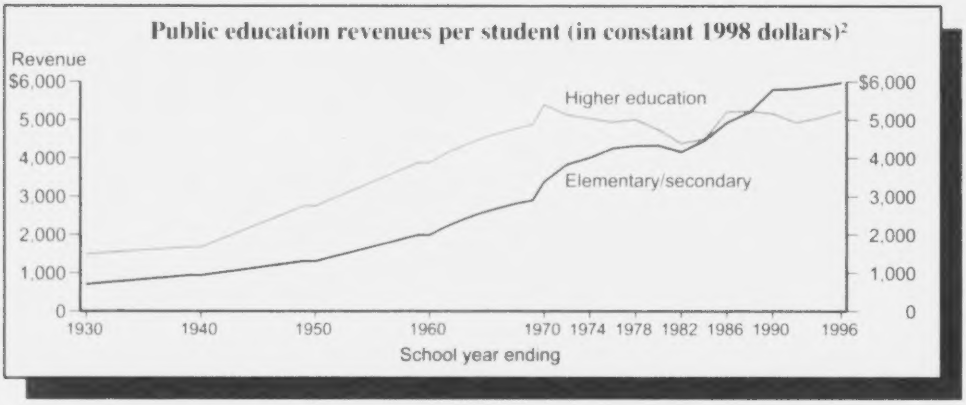
[4] Income or population is for the calendar year in which the school year began.

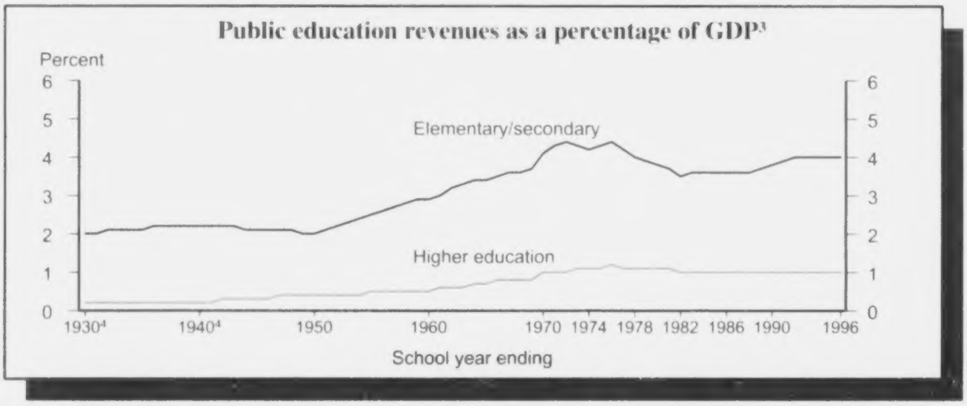
NOTE: Public education revenues at the elementary and secondary level are revenues at public schools. Public funds for higher education may be used at many types of institutions, both publicly and privately controlled. Enrollment in both publicly and privately controlled institutions is included. For more information about the calculation of these statistics, see the supplemental note to this indicator.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics 1998; 120 Years of American Education: A Statistical Portrait*, 1993.

National indicators of public investment in education, by level: School years ending 1930–96


National index[1] of public effort


Public education revenues per student (in constant 1998 dollars)[2]


Public education revenues as a percentage of GDP[3]

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[1] Revenues per student divided by per capita personal income. Revised from previously published figures.

[2] For the calendar year in which the school year ended. In constant 1998 dollars, adjusted by the Consumer Price Index (CPI).

[3] Gross Domestic Product (GDP) is Gross National Product (GNP) less net property income from abroad for the calendar year in which the school year began.

[4] Income or population is for the calendar year in which the school year began.

SOURCE: U.S. Department of Education, National Center for Education Statistics. *Digest of Education Statistics 1998*; *120 Years of American Education: A Statistical Portrait*, 1993.

Public elementary and secondary expenditures per student

Public elementary and secondary spending can be divided into three main functional areas: instruction, support services, and capital outlay. How school districts spend the funds they receive is influenced by many factors, such as the overall level of funding; the differences in student needs (e.g., demand for special education services and programs for limited-English-proficient students); and the relative cost of educational resources (e.g., teacher salaries, building maintenance, and construction costs for new schools). The distribution of expenditures across functional areas is an indication of how public school systems allocate funds to meet their specific needs.

- In the 1995–96 school year, public schools spent, on average, $6,855 per pupil (in constant 1998 dollars). Of that amount, more than half ($3,677) was spent on instruction, which includes teacher salaries and benefits, supplies, and purchased instructional services.

- Between the 1989–90 and 1995–96 school years, the percentages of total expenditures per pupil that public schools spent on instruction and capital outlay increased slightly, whereas the percentage spent on support services decreased.

- In the 1994–95 school year, relatively high wealth school districts (those with a median household income of $35,000 or more) spent more per pupil than school districts with less wealth. The distribution of expenditures across functional areas was slightly different according to the wealth of school districts. For example, wealthy school districts spent slightly less proportionally than poorer school districts (those with a median household income of less than $20,000) in instruction (53 versus 55 percent) and more in capital outlay (9 versus 7 percent; see supplemental table 38-1).

Public school expenditures per student (in constant 1998 dollars) and percentage distribution, by function: School years 1989–90 to 1995–96

						Percentage distribution				
School year	Total	Instruction	Support services	Capital outlay	Other	Total	Instruction	Support services	Capital outlay	Other
1989–90	$6,684	$3,567	$2,346	$559	$212	100.0	53.4	35.1	8.4	3.2
1991–92	6,710	3,576	2,303	565	266	100.0	53.3	34.3	8.4	4.0
1993–94	6,753	3,605	2,289	604	255	100.0	53.4	33.9	9.0	3.8
1994–95	6,802	3,670	2,275	596	260	100.0	54.0	33.4	8.8	3.8
1995–96	6,855	3,677	2,279	643	256	100.0	53.6	33.2	9.4	3.7

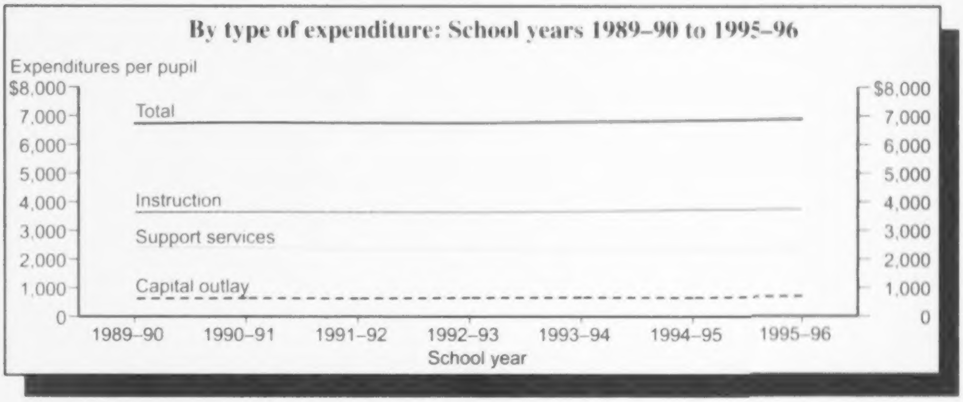
Public school expenditures per student (in constant 1998 dollars), by function and selected district characteristics: School year 1994–95

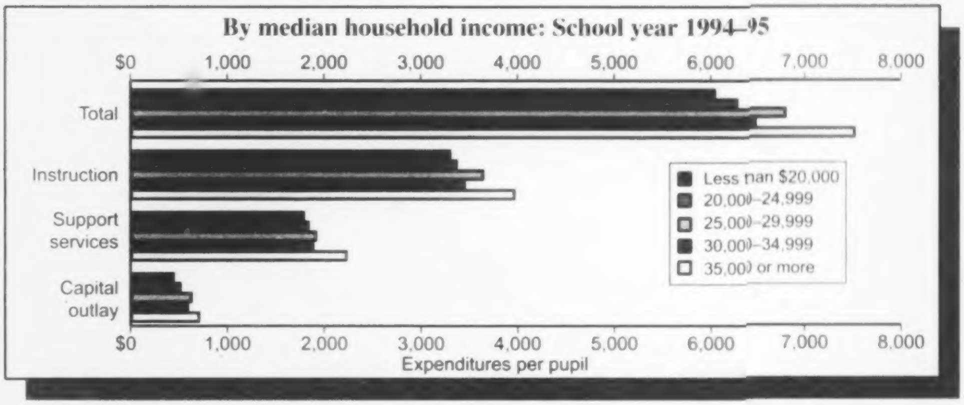
Selected district characteristics	Total	Instruction	Support services	Capital outlay	Other
Median household income					
Less than $20,000	$6,028	$3,289	$1,775	$431	$534
20,000–24,999	6,259	3,356	1,823	501	580
25,000–29,999	6,790	3,631	1,902	616	642
30,000–34,999	6,479	3,439	1,871	578	591
35,000 or more	7,504	3,952	2,217	693	642
Percentage of minority school-age children					
Less than 5	6,798	3,653	1,920	548	678
5–19	6,827	3,592	1,990	684	561
20–49	6,396	3,357	1,904	587	548
50 or more	7,251	3,980	2,063	506	702

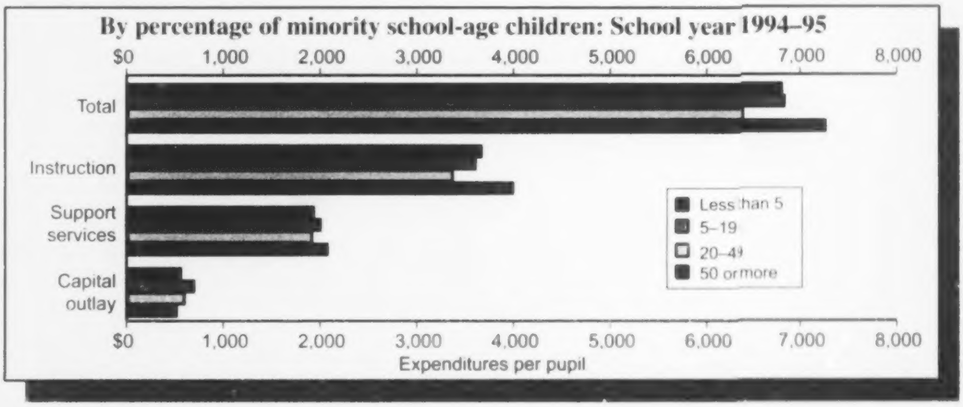
NOTE: See the glossary for definitions of specific expenditure functions. The district characteristics are from the U.S. Department of Commerce, Bureau of the Census, "1990 Census School District Special Tabulations." The school year Consumer Price Index (CPI) was used to adjust expenditures to constant 1998 dollars. Details may not add to totals due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data surveys, various years, and "School District Finance File," 1994–95. U.S. Department of Commerce, Bureau of the Census, "1990 Census School District Special Tabulations."

Public school expenditures per student (in constant 1998 dollars), by function


By type of expenditure: School years 1989–90 to 1995–96


By median household income: School year 1994–95


By percentage of minority school-age children: School year 1994–95

NOTE: See the glossary for definitions of specific expenditure functions. The district characteristics are from the U.S. Department of Commerce, Bureau of the Census, "1990 Census School District Special Tabulations." The school year Consumer Price Index (CPI) was used to adjust expenditures to constant 1998 dollars.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data surveys, various years, and "School District Finance File," 1994–95. U.S. Department of Commerce, Bureau of the Census, "1990 Census School District Special Tabulations."

Higher education revenues per student

Tuition and fees, government appropriations, and gifts and endowments provide most of the revenues for institutions of higher education. The proportion of total revenues from each source can vary from year to year, thus requiring administrators of U.S. colleges and universities to be alert to changes in the overall availability of funds. The availability of funds and their sources affect decisions about rates for tuition and fees and, in turn, the cost of providing and completing a higher education degree.

- The primary source of revenue for all public institutions is government appropriations. Between 1986 and 1996, government appropriations per full-time-equivalent (FTE) student fell both in constant 1995–96 dollars and as a share of all revenue at public universities from $8,980 to $7,994 and from 53 to 40 percent as a share of all revenue (see supplemental tables 39-1 and 39-2).

- Between 1986 and 1996, tuition and fees per FTE student increased both in constant dollars and as a share of all revenue at public institutions. At public universities, for example, tuition and fees rose from $3,186 to $4,825 in constant 1995–96 dollars and from 19 to 25 percent as a share of all revenue between 1986 and 1996 (see supplemental table 39-1).

- Between 1986 and 1996, average tuition and fee revenue per FTE student increased at private universities, rising from $12,000 to $16,299 in constant 1995–96 dollars. In addition, revenue from private gifts and endowment income per FTE student climbed by 37 percent (from $6,014 to $8,227), compared with an increase of 12 percent at private 4-year colleges (from $2,794 to $3,134).

General education revenues of higher education institutions per full-time-equivalent (FTE) student (in constant 1995–96 dollars), by selected revenue sources and control and type of institution: Academic years ending 1977–96

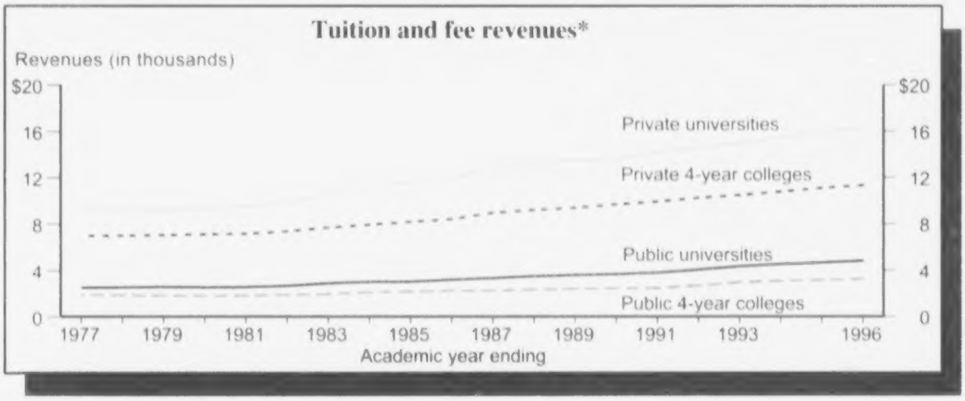
	Universities				Colleges					
	Private		Public		Private 4-year		Public 4-year		Public 2-year	
Academic year ending	Tuition and fees*	Gifts and endowment	Tuition and fees*	Government appropriations	Tuition and fees*	Gifts and endowment	Tuition and fees*	Government appropriations	Tuition and fees*	Government appropriations
1977	$9,172	$4,779	$2,487	$8,386	$6,945	$2,417	$1,865	$7,466	$1,018	$4,513
1978	9,141	4,731	2,514	8,558	6,978	2,343	1,838	7,621	977	4,555
1979	9,232	4,779	2,556	8,829	7,021	2,358	1,806	7,897	979	4,620
1980	9,267	4,782	2,525	8,646	7,087	2,454	1,785	7,976	983	4,511
1981	9,512	4,937	2,543	8,301	7,137	2,466	1,808	7,795	979	4,248
1982	9,866	4,971	2,659	8,110	7,353	2,546	1,892	7,758	1,034	4,190
1983	10,537	4,836	2,877	7,935	7,672	2,602	1,943	7,528	1,039	3,891
1984	11,219	5,532	2,997	8,240	7,918	2,629	2,104	7,453	1,077	3,970
1985	11,601	5,809	3,012	8,779	8,170	2,749	2,161	8,014	1,147	4,309
1986	12,000	6,014	3,186	8,980	8,402	2,794	2,243	8,169	1,165	4,510
1987	12,848	6,317	3,330	8,759	8,947	2,924	2,245	7,871	1,177	4,528
1988	13,198	6,573	3,492	8,841	9,193	2,909	2,336	7,952	1,162	4,423
1989	13,502	6,709	3,584	8,821	9,383	2,902	2,401	7,616	1,220	4,436
1990	13,628	6,822	3,668	8,678	9,684	2,845	2,443	7,436	1,221	4,271
1991	14,210	6,958	3,794	8,442	9,919	2,790	2,458	6,856	1,274	4,245
1992	14,557	6,960	4,050	8,056	10,255	2,667	2,703	6,659	1,337	4,004
1993	14,963	7,337	4,340	7,964	10,474	2,634	2,968	6,532	1,438	3,953
1994	15,469	7,538	4,526	7,929	10,786	2,621	3,083	6,470	1,522	4,066
1995	15,900	7,761	4,668	8,062	11,111	2,775	3,163	6,592	1,534	4,167
1996	16,299	8,227	4,825	7,994	11,337	3,134	3,263	6,481	1,574	4,199

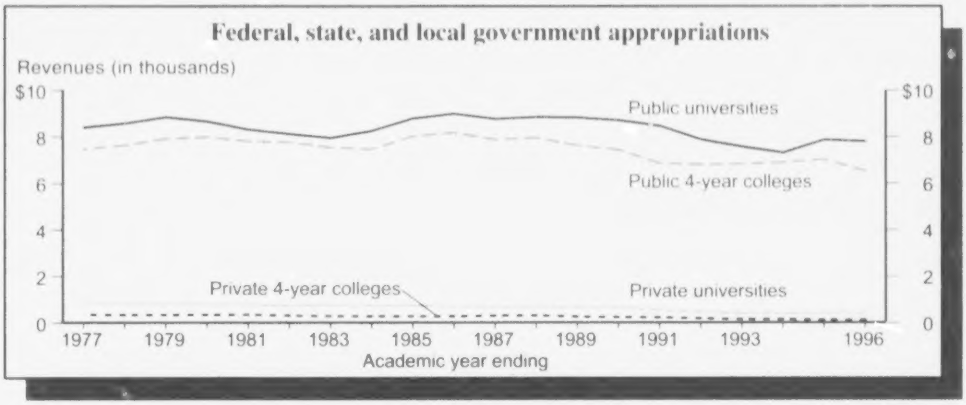
* Federally supported student aid received through students (e.g., Federal Student Loan Programs) is included under tuition and fees.

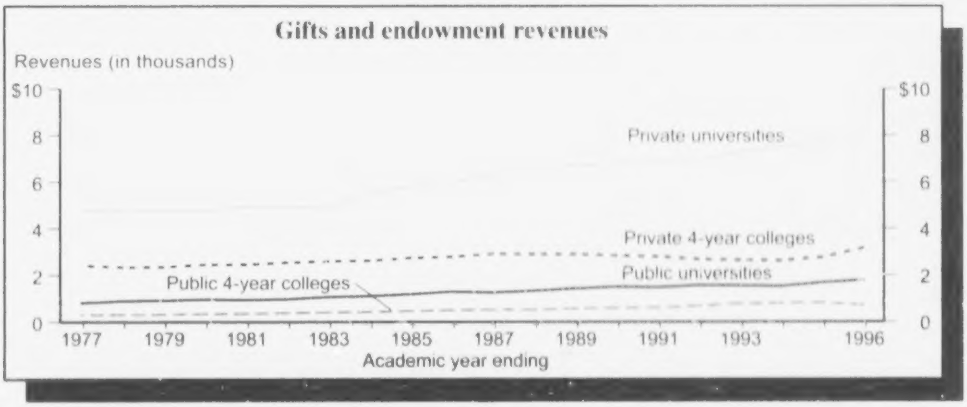
NOTE: The Higher Education Price Index (HEPI) was used to calculate constant dollars. Data for academic years 1976–77 through 1985–86 include only institutions that provided both enrollment and finance data. Data for "Gifts and endowment" and "Federal appropriations" do not always match individual categories presented in table 39-2 due to rounding. FTE students include both undergraduate and graduate students. Data from academic years ending 1989 to 1995 were revised from previously published figures.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Higher Education General Information Survey (HEGIS) "Financial Statistics of Institutions of Higher Education" survey and Integrated Postsecondary Education Data System (IPEDS) "Institutional Characteristics," "Financial Statistics," and "Fall Enrollment" surveys.

General education revenues of higher education institutions per full-time-equivalent (FTE) student (in constant 1995–96 dollars), by selected revenue sources and control and type of institution: Academic years ending 1977–96


Tuition and fee revenues*


Federal, state, and local government appropriations


Gifts and endowment revenues

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* Federally supported student aid received through students (e.g., Federal Student Loan Programs) is included under tuition and fees.

NOTE: The Higher Education Price Index (HEPI) was used to calculate constant dollars. Data for academic years 1976–77 through 1985–86 include only institutions that provided both enrollment and finance data. Data for "Gifts and endowment" and "Federal appropriations" do not always match individual categories presented in table 39-2 due to rounding. FTE students include both undergraduate and graduate students. Data from academic years 1989 to 1995 were revised from previously published figures.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Higher Education General Information Survey (HEGIS) "Financial Statistics of Institutions of Higher Education" survey and Integrated Postsecondary Education Data System (IPEDS) "Institutional Characteristics," "Financial Statistics," and "Fall Enrollment" surveys.

Higher education expenditures per student

Faculty and staff salaries and institutionally supported research account for a large share of higher education expenditures. Since differences in institutional spending can affect the quality and nature of instruction and learning experiences, understanding variations in expenditures can provide insight into the organization and operation of higher education.

- Overall spending per full-time-equivalent (FTE) student increased at all types of higher education institutions between 1986 and 1996. In constant 1995–96 dollars, increases ranged from 7 percent at public 2-year colleges (from $6,292 to $6,733 per FTE student) to 33 percent at private universities (from $27,983 to $37,200 per FTE student).

- Although instructional expenditures per FTE student increased between 1986 and 1996, instructional spending as a percentage of total expenditures fell at public universities, public 4-year colleges, private 4-year colleges, and public 2-year colleges (by 2, 4, 3, and 2 percentage points, respectively). At private universities, instructional spending as a percentage of total expenditures remained similar during this period (see supplemental table 40-1).

- In 1996, total expenditures per FTE student were higher at private universities than at public universities ($37,200 versus $19,700). Likewise, total expenditures at private 4-year colleges were higher than expenditures at public 4- and 2-year colleges ($17,177 versus $13,403 and $6,733, respectively).

- Between 1986 and 1996, research expenditures increased by 27 percent in private universities (from $5,173 to $6,551 per FTE student) and by 29 percent in public universities (from $3,319 to $4,292 per FTE student). Over the decade, research spending accounted for roughly 18 percent of total institutional expenditures in private universities, and rose from 20 to 22 percent of total spending in public universities (see supplemental table 40-1).

Educational and general expenditures of higher education institutions per full-time-equivalent (FTE) student (in constant 1995–96 dollars), by selected expenditure categories and control and type of institution: Academic years ending 1977–96

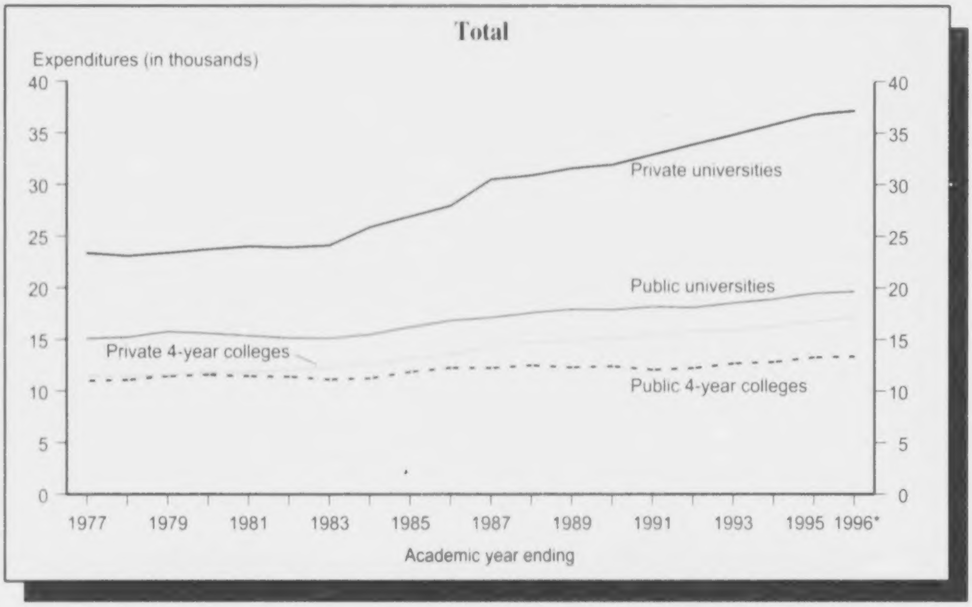
Academic year ending	Universities						Colleges					
	Private			Public			Private 4-year		Public 4-year		Public 2-year	
	Total	Instruction	Research	Total	Instruction	Research	Total	Instruction	Total	Instruction	Total	Instruction
1977	$23,395	$8,895	$4,927	$15,112	$5,893	$2,774	$11,533	$4,307	$11,020	$5,111	$5,939	$3,033
1980	23,750	8,992	4,875	15,633	6,059	3,047	11,821	4,334	11,598	5,203	6,071	3,053
1983	24,140	9,505	4,313	15,139	5,878	2,905	12,279	4,449	11,148	5,091	5,499	2,797
1986	27,983	10,569	5,173	16,868	6,357	3,319	13,605	4,770	12,283	5,532	6,292	3,140
1987	30,544	11,732	5,633	17,162	6,521	3,428	14,409	4,947	12,278	5,489	6,394	3,173
1988	30,934	11,612	5,790	17,628	6,581	3,631	14,768	5,032	12,527	5,586	6,309	3,104
1989	31,609	12,004	5,823	17,961	6,613	3,764	14,916	5,041	12,335	5,502	6,379	3,162
1990	31,961	12,087	5,954	17,915	6,552	3,827	15,167	5,085	12,447	5,525	6,206	3,090
1991	32,945	12,616	5,858	18,237	6,613	3,963	15,417	5,153	12,102	5,367	6,276	3,129
1992	33,923	12,945	5,912	18,145	6,538	3,988	15,812	5,232	12,262	5,297	5,992	3,014
1993	34,870	13,386	6,225	18,588	6,628	4,150	15,964	5,236	12,714	5,338	6,082	3,047
1994	35,876	13,799	6,334	18,957	6,693	4,241	16,340	5,284	12,862	5,416	6,390	3,154
1995	36,828	14,117	6,583	19,525	6,913	4,353	16,799	5,422	13,317	5,566	6,538	3,205
1996*	37,200	13,902	6,551	19,700	6,946	4,292	17,177	5,593	13,403	5,486	6,733	3,240

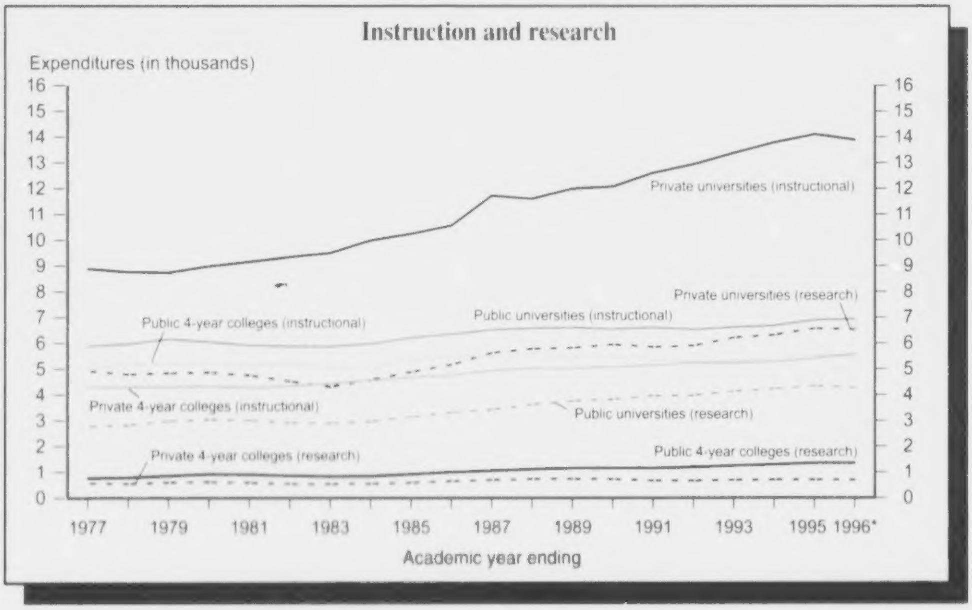
* Preliminary data.

NOTE: The Higher Education Price Index (HEPI) was used to calculate constant dollars. Data for academic years 1976–77 through 1985–86 include only institutions that provided both enrollment and finance data. FTE students include both undergraduate and graduate students.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics 1998* (based on the IPEDS "Institutional Characteristics," "Financial Statistics," and "Fall Enrollment" surveys).

Educational and general expenditures of higher education institutions per full-time-equivalent (FTE) student (in constant 1995–96 dollars), by control and type of institution: Academic years ending 1977–96





* Preliminary data.

NOTE: The Higher Education Price Index (HEPI) was used to calculate constant dollars. Data for academic years 1976–77 through 1985–86 include only institutions that provided both enrollment and finance data. FTE students include both undergraduate and graduate students.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics 1998* (based on the IPEDS "Institutional Characteristics," "Financial Statistics," and "Fall Enrollment" surveys).

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International comparisons of expenditures for education

The proportion of total financial resources that countries invest in education indicate the relative importance that they place on education. The public and private shares indicate where the responsibility lies for funding education in that country. International comparisons of expenditures for education vary considerably in the share of national resources devoted to education, the sources (public or private) of funds spent on education, and the levels of education to which funds are allocated.

- Total expenditures for elementary and secondary education represented 3.9 percent of the U.S. Gross Domestic Product (GDP) in 1995; expenditures for higher education represented 2.3 percent of the GDP in the same year. Total expenditures for all education levels, including preprimary, and all sources combined made up 6.7 percent of the GDP of the United States. Of the G-7 countries, only Canada spent a larger fraction of its GDP on elementary–secondary and higher education than the United States, and France also spent a larger percentage of its GDP than did the United States on elementary–secondary education.

- Some countries rely more heavily than others on expenditures from private sources to finance education. For example, in both the United States and Japan, the percentage of GDP spent on higher education from private sources (1.2 and 0.6, respectively) was higher than the percentage from public sources (1.1 and 0.4, respectively). In other G-7 countries, the percentage from private sources was much smaller than the percentage from public sources. A number of G-7 countries had private funding levels for elementary–secondary schools that were similar to those of the United States, including Canada, France, and Japan.

- Among the G-7 countries, expenditures per student at the elementary and secondary levels in 1995 ranged from $3,328 and $4,246 in the United Kingdom to $5,371 and $6,812 in the United States, respectively. For higher education, however, expenditures per student varied widely. The United States spent more per higher education student than any other G-7 country and spent more than twice the amount spent in France, Italy, and the United Kingdom.

Public and private expenditures on educational institutions[1] in G-7 countries as a percentage of GDP, by level of education, funding source, and country: 1995

	As a percent of GDP					Per student[2]		
	Elementary–secondary		Higher education		All levels and sources combined[6]	Constant 1995 U.S dollars[3]		
G-7 country	Public sources[4]	Private sources[5]	Public sources[4]	Private sources[5]		Elementary	Secondary	Higher education
Canada	4.0	0.3	2.0	0.5	7.0	—	—	$11,471
France	4.1	0.3	1.0	0.2	6.3	$3,379	$6,182	6,569
Germany	2.9	0.9	1.0	0.1	5.8	3,361	6,254	8,897
Italy	3.2	(7)	0.8	0.1	4.7	4,673	5,348	5,013
Japan	2.8	0.3	0.4	0.6	4.7	4,065	4,465	8,768
United Kingdom	3.8	—	0.9	0.1	—	3,328	4,246	7,225
United States	3.5	0.4	1.1	1.2	6.7	5,371	6,812	16,262

— Not available.

[1] Includes all institutions, public and private, with the exception of Germany and Italy, which include only public institutions, and the United Kingdom, which includes public and government-dependent private institutions.

[2] Per student expenditures are calculated based on public and private Full-Time-Equivalent (FTE) enrollment figures and expenditures from both public and private sources, where data are available.

[3] Purchasing Power Parity (PPP) indices were used to convert other currencies to U.S. dollars. Because the fiscal year has a different starting date in different countries, within-country Consumer Price Indices (CPIs) were used to adjust the PPP indices to account for inflation. See the supplemental note to this indicator for further explanation.

[4] Public expenditures are defined as direct public expenditures on education institutions plus public subsidies to households and other private entities for education (e.g., tuition and fees), excluding other education-related public aid to students and households (e.g., subsidies for student living costs).

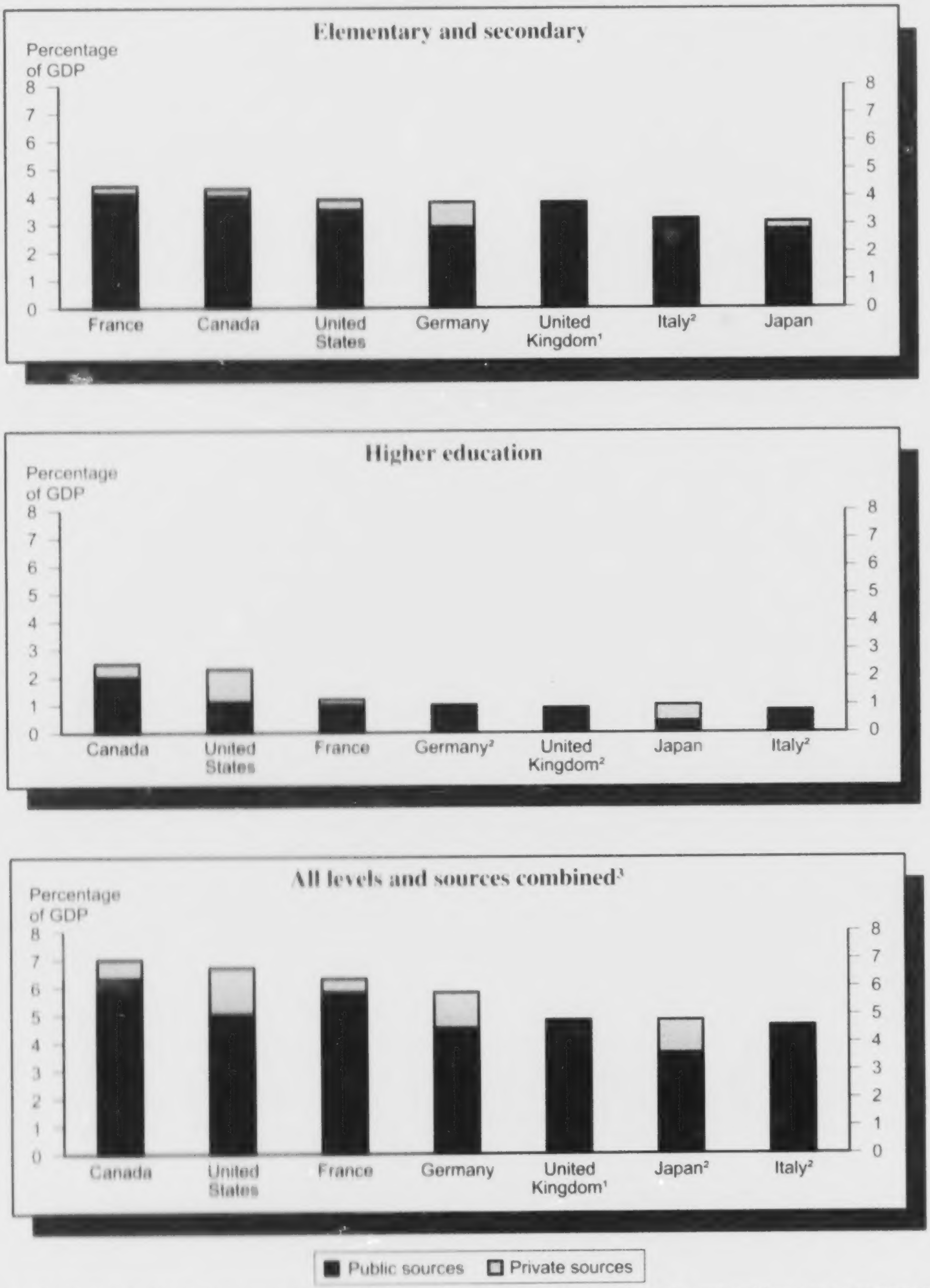
[5] Private expenditures are defined as private payments from households and other private entities to education institutions, minus any portion derived from public subsidies.

[6] "All levels combined" includes expenditures on preprimary education and funds classified as "undistributed," a classification reserved for enrollments, expenditures, or programs that cannot be classified by level (e.g., nongraded special education).

[7] Percentage is less than 0.05.

SOURCE: Organisation for Economic Co-operation and Development, Center for Educational Research and Innovation, *Education at a Glance: OECD Indicators*, 1998.

Public and private expenditures on educational institutions in G-7 countries as a percentage of Gross Domestic Product (GDP), by level of education and funding source: 1995



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[1] Sources of funds for the United Kingdom were not available.

[2] Private sources of funds for some countries are less than 1 percent; therefore, percentages may not be discernable in the graphs.

[3] "All levels combined" includes expenditures on preprimary education and funds classified as "undistributed," a classification reserved for enrollments, expenditures, or programs that cannot be classified by level (e.g., nongraded special education).

SOURCE: Organisation for Economic Co-operation and Development, Center for Educational Research and Innovation, *Education at a Glance: OECD Indicators*, 1998.

Trends in student borrowing: Subsidized and unsubsidized loans

The 1992 Reauthorization of the Higher Education Act expressed the desire of Congress to improve access to postsecondary education by allowing students from all income levels to receive unsubsidized Stafford federal student loans. In addition, students who qualify can also receive a subsidized federal student loan, with the federal government paying the interest while the students are enrolled. With unsubsidized federal loans, students are charged interest while enrolled, so there is some concern about the effect of this burden. Prior to 1993–94, unsubsidized federal loans were available only to independent students and to dependent students with exceptional need.

- The percentage of full-time, full-year undergraduates with subsidized federal student loans increased from 30 to 37 percent between 1992–93 and 1995–96. During the same period, the percentage with unsubsidized loans increased from 4 to 16 percent.
- While 1 percent of dependent undergraduates received an unsubsidized federal student loan in 1992–93, 12 percent did so by 1995–96.
- The percentage of independent students with unsubsidized federal student loans increased from 12 to 27 percent between 1992–93 and 1995–96, and increased in every income group.
- The percentage of independent students who received only subsidized federal loans decreased from 29 percent to 22 percent between 1992–93 and 1995–96 (see supplemental table 42-1).

Percentage of full-time, full-year undergraduates with subsidized and unsubsidized federal student loans, and for those with loans, the average amount borrowed in each academic year: 1992–93 and 1995–96[1]

	1992–93				1995–96			
	Subsidized loans		Unsubsidized loans		Subsidized loans		Unsubsidized loans	
Selected institutional and student characteristics	Percent	Average amount	Percent	Average amount	Percent	Average amount	Percent	Average amount
Total	**29.7**	**$2,837**	**3.8**	**$3,044**	**36.8**	**$3,373**	**16.0**	**$3,103**
Control and type of institution[2]								
Public 4-year	28.6	2,771	2.8	2,848	36.9	3,502	17.1	3,029
Private, not-for-profit 4-year	42.0	2,983	4.3	3,438	49.6	3,662	15.4	3,337
Public 2-year	10.1	2,107	1.2	—	12.1	2,312	6.4	2,637
Private, for-profit	51.5	3,096	15.5	2,936	59.5	2,899	38.7	3,413
Dependency status								
Dependent	25.6	2,741	0.8	2,792	33.4	3,251	12.1	2,904
Independent	39.8	2,990	11.5	3,086	46.3	3,621	27.1	3,355
Dependent family income								
Low quartile	45.0	2,664	1.4	2,546	44.8	3,272	5.5	2,718
Lower middle quartile	36.4	2,753	1.1	2,788	46.7	3,390	8.2	2,277
Upper middle quartile	21.6	2,761	0.5	3,075	32.3	3,155	16.6	2,741
High quartile	12.9	2,869	0.4	—	13.4	2,989	16.8	3,377
Independent family income								
Low quartile	45.7	2,901	10.6	2,796	52.9	3,672	27.3	3,043
Lower middle quartile	37.7	3,028	13.0	3,285	51.1	3,613	28.7	3,377
Upper middle quartile	34.1	3,121	12.0	3,233	42.6	3,556	25.3	3,508
High quartile	29.7	3,205	11.2	3,394	24.7	3,514	26.1	3,972

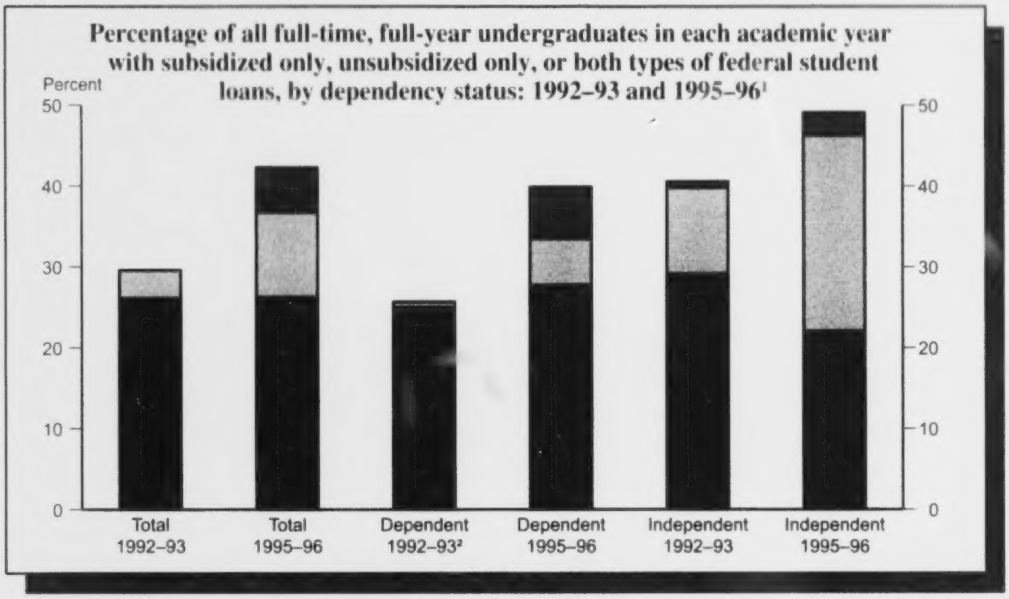
— Too few sample observations for a reliable estimate.

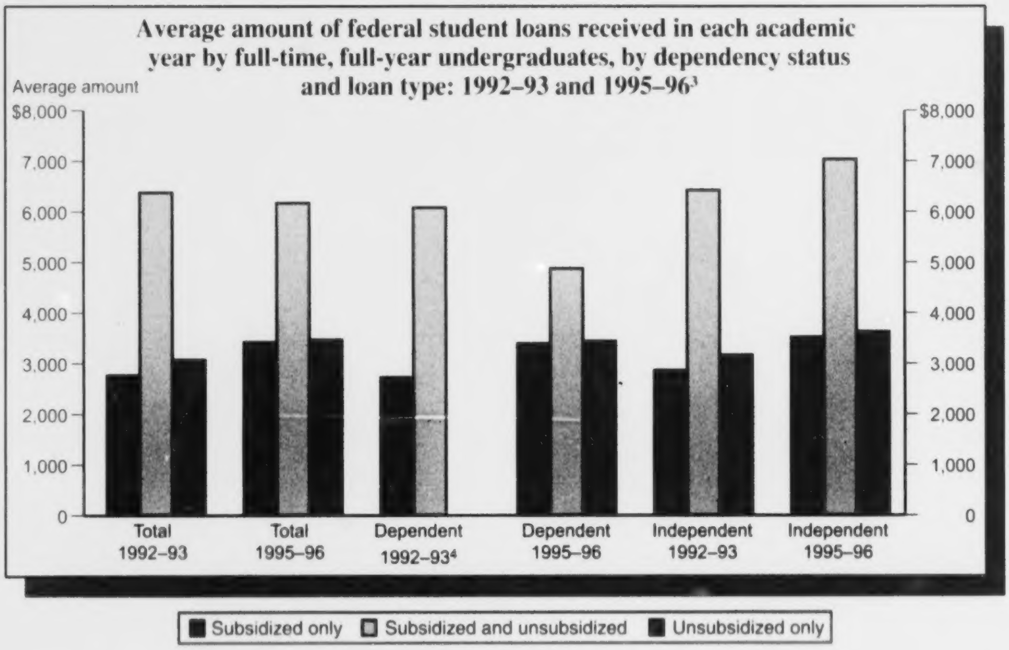
[1] In 1992–93, subsidized federal student loans were offered through the Stafford Federal Loan Program and unsubsidized federal student loans through the Supplemental Loans for Students (SLS) program. In 1995–96, both subsidized and unsubsidized loans were offered through the Stafford Federal Loan program. Students may receive both a subsidized and unsubsidized loan in an academic year, and thus may appear in each loan category.

[2] Excludes public less-than-2-year and private, not-for-profit less-than-4-year institutions.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1992–93 and 1995–96.

Trends in student borrowing: Subsidized and unsubsidized loans





[1] In 1992–93, subsidized federal student loans were offered through the Stafford Federal Loan Program and unsubsidized federal student loans through the Supplemental Loans for Students (SLS) program. In 1995–96, both subsidized and unsubsidized federal student loans were offered through the Stafford Federal Loan Program.

[2] Percentage for unsubsidized only is less than 1 percent; therefore, it may not be discernible on the graph.

[3] Among those who received a subsidized or unsubsidized federal student loan in each academic year.

[4] Too few observations for a reliable estimate for unsubsidized only.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1992–93 and 1995–96.

Student financing of graduate and first-professional education

Parental income and assets are not considered when determining graduate and first-professional students' eligibility for financial aid. Thus, student financial aid plays a particularly important role in providing access to graduate and first-professional education.

- In 1995–96, 52 percent of all graduate and first-professional students received some type of financial aid, averaging $9,800. The other 48 percent of all students paid for their education entirely with their own resources or assistance from families and friends. Among those who attended full time, full year, 76 percent received financial aid, averaging $14,400 (see supplemental tables 43-1 and 43-2).

- Most graduate and first-professional students worked while enrolled (79 percent), even when they were enrolled full time, full year (64 percent; see supplemental table 43-1).

- Students could receive more than one type of aid. At the master's degree level, 51 percent received financial aid: 30 percent received grants; 22 percent took out loans; and 10 percent worked as teaching or research assistants. Students at public institutions were more likely to hold assistantships than those at private, not-for-profit institutions.

- At the doctor's level, 65 percent of students received financial aid. Doctor's students were much more likely than master's students to have tuition waivers (17 percent versus 7 percent) and assistantships (36 percent versus 10 percent). Doctor's students at public institutions were more likely than those at private, not-for-profit institutions to have both these types of aid.

- Compared with master's and doctor's students, first-professional students were less likely to work and more likely to have loans and to have a higher average loan amount. First-professional students with loans borrowed an average of $16,500, compared with $9,900 for master's and doctor's students with loans (see supplemental table 43-2).

Percentage of graduate and first-professional students with various types of aid, percentage who worked while enrolled, and average hours worked per week while enrolled, by degree program and type of institution: Academic year 1995–96

Degree program and type of institution	Any aid	Any grants[1]	Tuition waiver[2]	Any loans	Any assistantships	Worked while enrolled	Average hours worked per week[3]
Total[4]	**51.9**	**29.6**	**7.8**	**24.7**	**11.1**	**78.9**	**35.1**
Master's degree[4]	51.3	30.0	7.4	22.1	10.3	84.3	36.6
Public	51.3	28.5	9.1	20.2	15.4	83.2	35.1
Private, not-for-profit	51.1	31.9	5.4	24.8	3.6	85.3	38.1
Doctor's degree[4]	65.0	37.0	17.1	19.5	35.9	76.4	31.8
Public	67.4	38.0	22.1	16.8	43.9	81.3	29.1
Private, not-for-profit	61.1	37.9	9.4	20.9	24.5	67.8	37.9
First-professional degree[4, 5]	80.2	37.9	3.4	69.4	4.1	50.4	24.8
Public	84.3	42.4	4.5	76.9	5.2	40.6	21.7
Private, not-for-profit	77.4	34.7	2.6	64.2	3.2	56.7	26.3

[1] Grants include scholarships, fellowships, tuition waivers, and employer aid (forms of aid that do not have to be repaid).

[2] Also included in the "Any grants" column.

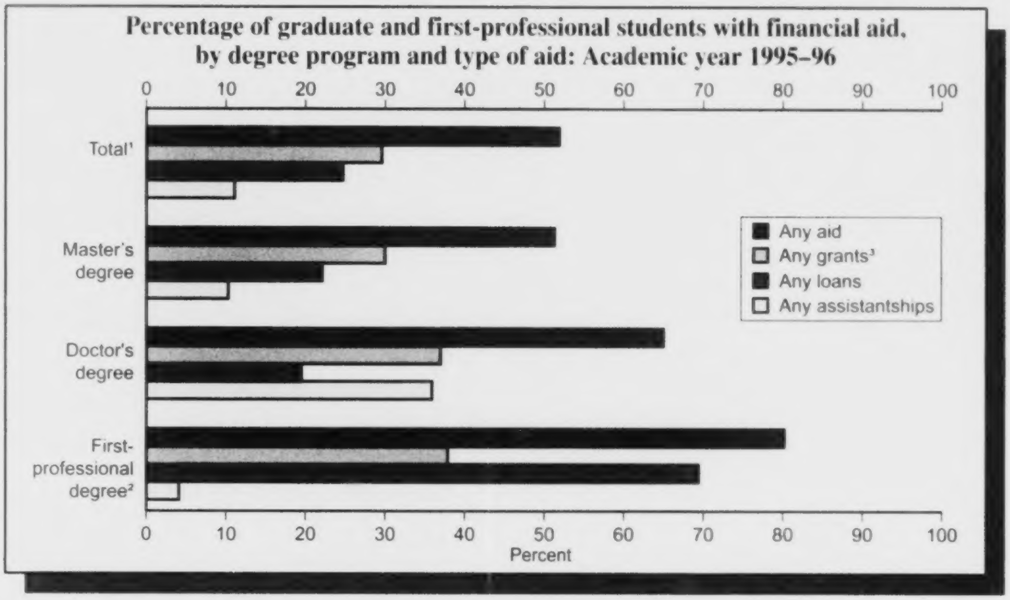
[3] For students who worked.

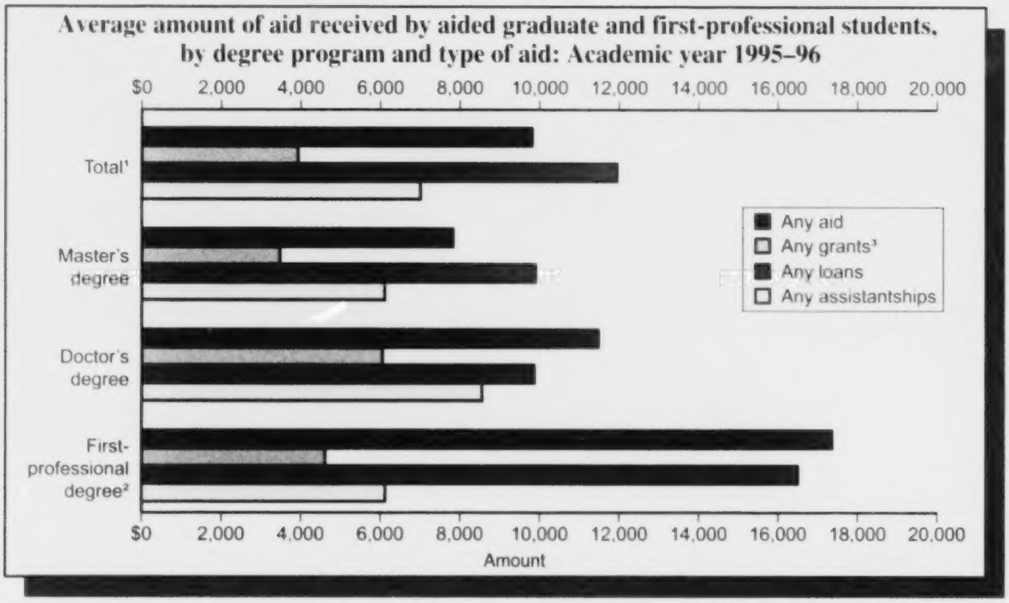
[4] Total includes students in graduate programs other than master's, doctor's, and first-professional. Total and degree program totals include students in private, for-profit institutions.

[5] First-professional programs include medicine, chiropractic, dentistry, optometry, osteopathic medicine, pharmacy, podiatry, veterinary medicine, law, and theology.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1995–96, Graduate Data Analysis System.

Financial aid received by graduate and first-professional students


Percentage of graduate and first-professional students with financial aid, by degree program and type of aid: Academic year 1995–96


Average amount of aid received by aided graduate and first-professional students, by degree program and type of aid: Academic year 1995–96

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[1] Total includes students in graduate programs other than master's, doctor's, and first-professional programs.

[2] First-professional programs include medicine, chiropractic, dentistry, optometry, osteopathic medicine, pharmacy, podiatry, veterinary medicine, law, and theology.

[3] Grants include scholarships, fellowships, tuition waivers, and employer aid (forms of aid that do not have to be repaid).

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1995–96, Graduate Data Analysis System.

Section V. Educational Participation and Progress

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Preprimary education enrollment

Participating in early childhood programs such as Head Start, nursery school, prekindergarten, and kindergarten can better prepare a child to enter first grade. Many policymakers and educators believe that it is important to help all children start elementary school on an equal footing with other children. Involving students and their parents in preprimary programs beginning at earlier ages may provide valuable experiences that will help children start elementary school better prepared to learn.

- Preprimary enrollment rates for 5-year-olds were higher in 1996 than in 1991, while enrollment rates for 3- and 4-year-olds were similar in both years. In 1996, 43 percent of 3-year-olds, 64 percent of 4-year-olds, and 92 percent of 5-year-olds were enrolled in preprimary education.
- In 1995, similar percentages of white and black 3- and 4-year-olds were enrolled in center-based programs, while their Hispanic peers were less likely to be enrolled (see supplemental table 44-1).
- Three- and 4-year-olds from families with incomes of more than $50,000 were more likely to be enrolled in preprimary education than their peers from families with incomes of $50,000 or less.
- Overall, there was a positive relationship between parents' educational attainment and the enrollment rates of 3-, 4-, and 5-year-olds: As parents' educational attainment increased, so did the preprimary enrollment rates of their children.

Percentage of 3-, 4-, and 5-year-olds enrolled in center-based programs or kindergarten,[1] by selected student characteristics: 1991, 1993, 1995, and 1996

	3-year-olds				4-year-olds				5-year-olds			
Selected student characteristics	1991	1993	1995	1996	1991	1993	1995	1996	1991	1993	1995	1996
Total	**42.6**	**40.6**	**41.0**	**42.6**	**61.7**	**63.1**	**65.4**	**64.4**	**89.8**	**91.1**	**93.2**	**92.3**
Race–ethnicity												
White	44.8	40.8	44.0	44.6	61.4	63.6	65.8	65.3	89.5	90.7	92.6	91.8
Black	45.4	47.1	44.6	49.8	71.7	68.5	72.9	79.3	94.0	93.2	94.5	95.5
Hispanic	24.9	32.8	22.4	28.4	51.5	50.7	50.1	48.8	86.2	90.7	93.2	90.1
Other	[2]43.8	[2]35.7	[2]32.9	[2]39.5	[2]62.3	[2]72.6	[2]71.6	[2]51.0	[2]90.6	90.2	98.4	95.6
Household income												
$10,000 or less	([3])	35.3	31.7	30.5	([3])	56.8	61.5	58.7	([3])	91.1	94.5	91.4
10,001–20,000	([3])	27.3	31.6	40.1	([3])	54.7	57.0	57.0	([3])	89.8	90.7	90.4
20,001–35,000	([3])	30.6	32.7	34.9	([3])	54.9	52.9	55.4	([3])	86.3	92.2	91.3
35,001–50,000	([3])	46.5	40.7	47.4	([3])	68.6	63.5	65.8	([3])	92.7	89.1	91.6
50,001 or more	([3])	64.6	62.1	60.3	([3])	82.4	84.5	80.9	([3])	97.1	97.3	95.2
Parents' highest education level												
Less than high school diploma	23.3	16.1	19.9	[2]27.1	37.6	46.5	[2]44.9	[2]54.6	86.9	79.6	93.8	87.7
High school diploma or GED	32.5	29.3	29.3	34.8	51.9	51.5	56.7	54.2	87.8	89.3	91.7	92.6
Some college/vocational/technical	44.5	42.9	40.6	42.0	64.1	68.6	65.6	66.5	91.3	92.6	92.3	91.5
Bachelor's degree	53.8	52.9	55.1	55.2	77.0	74.8	76.6	70.1	91.3	95.7	96.2	94.3
Graduate/professional school	66.1	66.4	[2]62.6	62.1	81.1	80.1	83.3	83.3	92.4	96.0	94.8	94.7
Family structure												
Two biological or adoptive parents	—	40.6	41.1	42.9	—	62.9	65.5	62.3	—	90.3	92.1	91.8
One biological or adoptive parent	—	41.7	43.6	43.2	—	64.9	65.8	69.2	—	93.6	95.4	92.7
One biological/adoptive and one stepparent	—	[2]30.3	[2]23.1	[2]28.8	—	[2]56.8	[2]60.7	[2]53.1	—	88.5	94.3	94.3
Other relatives	—	[2]37.6	[2]18.9	[2]45.5	—	[2]64.6	[2]66.9	[2]76.0	—	[2]91.6	97.0	96.5

— Not available.

[1] See the glossary for definitions of center-based programs and kindergarten.

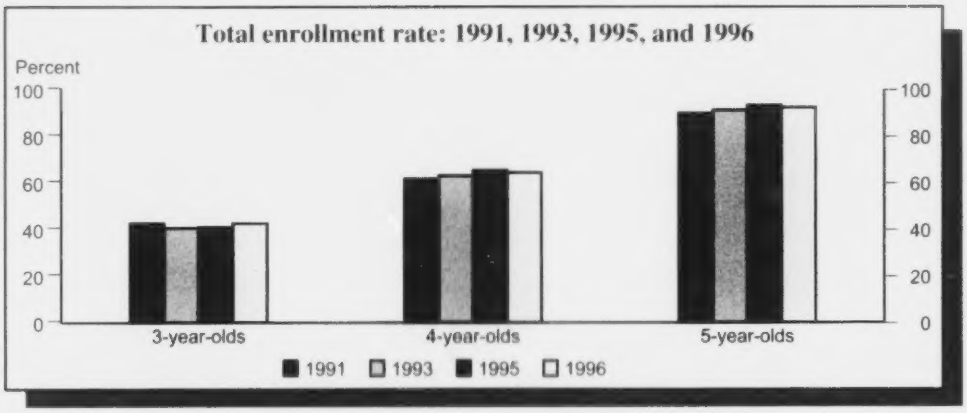
[2] Interpret with caution; standard errors are large due to small sample sizes.

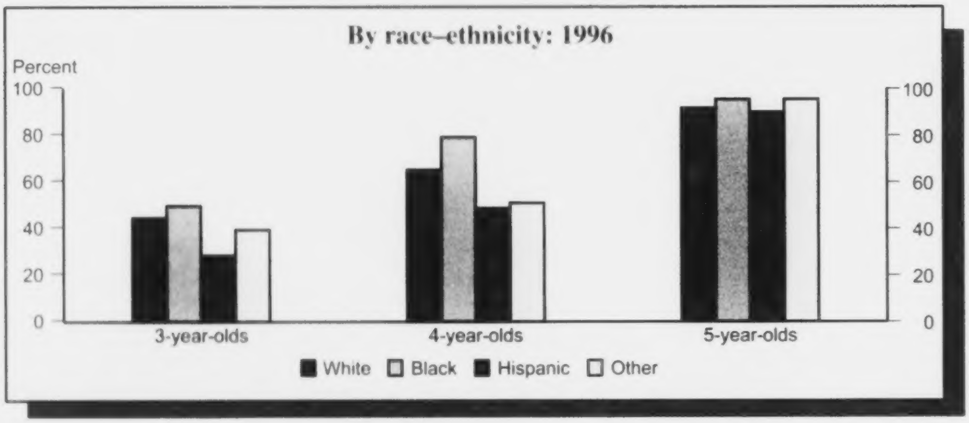
[3] Family income data for 1991 are not comparable to data for 1993, 1995, and 1996.

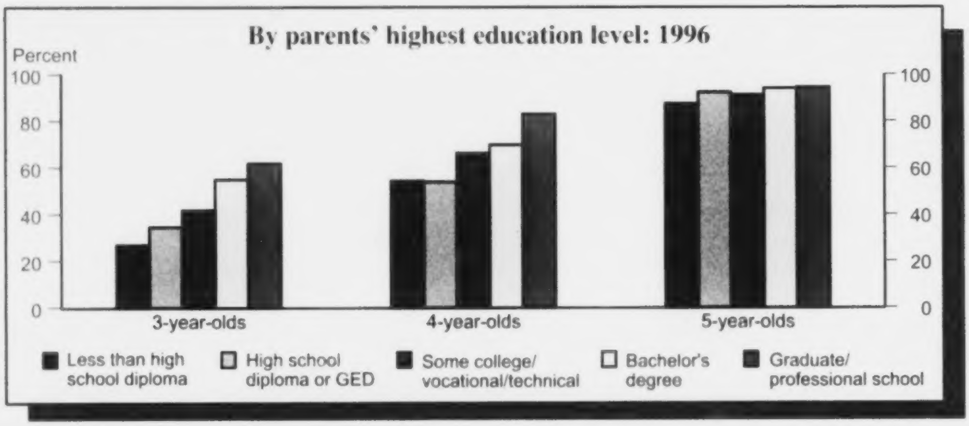
NOTE: Included in the total but not shown separately are children from other types of family structures and racial–ethnic groups. This analysis includes children ages 3–5 who were not enrolled in first grade. Age is as of December 31 of the prior year. Data are revised from previously published figures.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), 1991 (Early Childhood Education File), 1993 (School Readiness File), 1995 (Early Childhood Program Participation File), and 1996 (Parent and Family Involvement in Education File).

Percentage of 3-, 4-, and 5-year-olds enrolled in center-based programs or kindergarten*







* See glossary for definitions of center-based programs and kindergarten.

NOTE: Included in the total but not shown separately are children from other racial–ethnic groups. This analysis includes children ages 3–5 who were not enrolled in first grade. Age is as of December 31 of the prior year. Data are revised from previously published figures.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), 1991 (Early Childhood Education File), 1993 (School Readiness File), 1995 (Early Childhood Program Participation File), and 1996 (Parent and Family Involvement in Education File).

Elementary and secondary school enrollment

School enrollment is one measure of the size of the educational system and of the demand for teachers, buildings, and educational resources. Past trends and projected future changes in the composition of enrollment across levels of education and regions of the country, as well as between public and private schools, indicate the amount of resources the Nation requires.

- Total (public and private) elementary and secondary school enrollment increased considerably during the late 1980s and 1990s, reaching an all-time high of 52.7 million in 1998. This increase followed declining total enrollment in elementary and secondary schools during the 1970s and early 1980s (from 51.3 million in 1971 to 44.9 million in 1984; see supplemental table 45-1).
- Total elementary and secondary school enrollment is projected to increase by 3 percent (to 54.3 million) between 1998 and 2008 (see supplemental table 45-1).
- Secondary school enrollments (grades 9–12) are projected to increase by 11 percent for both public and private schools between 1998 and 2008, while enrollment in prekindergarten through grade 8 is projected to decrease slightly.
- Total public school enrollment is projected to increase in the South and West (by 4 and 11 percent, respectively) but to decrease in the Northeast and Midwest (by 1 and 3 percent, respectively) between 1998 and 2008.

Elementary and secondary school enrollment (in thousands), by control and grade level of school, with projections: Fall 1970–2008

	Public schools			Private schools[1]		
Year/period	Grades PreK–12	Grades PreK–8	Grades 9–12	Grades PreK–12	Grades PreK–8	Grades 9–12
1970	45,894	32,558	13,336	5,363	4,052	1,311
1988	40,189	28,501	11,687	5,241	4,036	1,206
1998	46,792	33,522	13,270	5,927	4,588	1,339
	Projected[2]			Projected[2]		
2008	48,201	33,455	14,746	6,067	4,579	1,488
	Percentage change			Percentage change		
1970–88	-12.4	-12.5	-12.4	-2.3	-0.4	-8.0
	Projected percentage change			Projected percentage change		
1988–98	16.4	17.6	13.5	13.1	13.7	11.0
1998–2008	3.0	-0.2	11.1	2.4	-0.2	11.1

[1] Beginning in fall 1980, data include estimates for the expanded universe of private schools.

[2] Enrollment includes students in kindergarten through grade 12 and some nursery school students.

NOTE: Details may not add to totals due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics 1998* (based on Common Core of Data) and *Projections of Education Statistics to 2008*, 1998.

Public elementary and secondary school enrollment (in thousands), by region, with projections: Fall 1980–2008

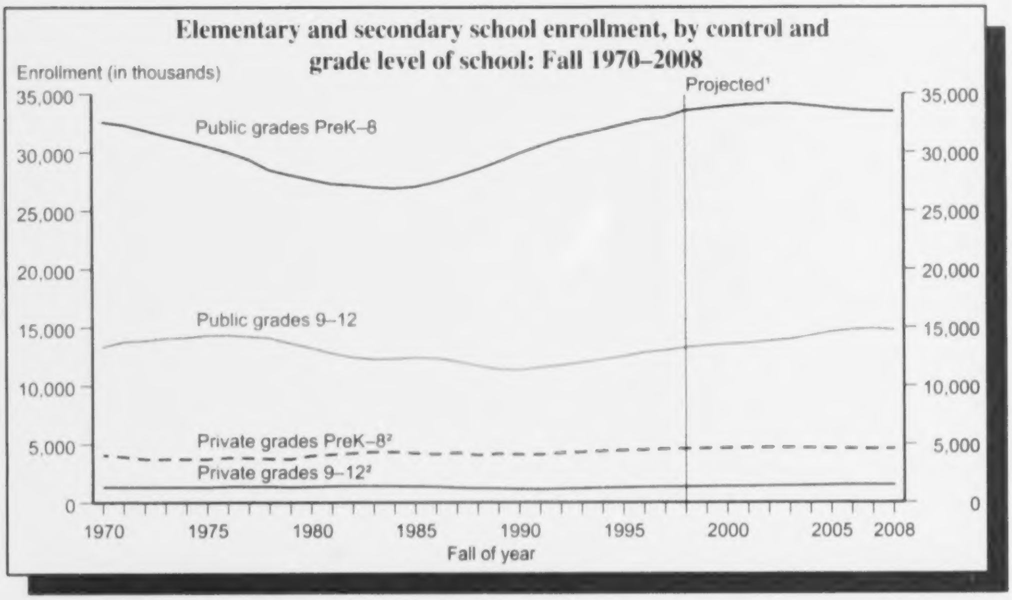
Fall of year	Northeast	Midwest	South	West
1980	8,215	10,698	14,134	7,831
1988	7,208	9,846	14,491	8,644
1990	7,282	9,944	14,807	9,184
1995	7,894	10,512	16,118	10,316
1998*	8,215	10,680	16,864	11,033
2008*	8,100	10,344	17,501	12,257
		Projected percentage change		
1988–98	14.0	8.5	16.4	27.6
1998–2008	-1.4	-3.1	3.8	11.1

* Projected enrollment. Enrollment includes students in kindergarten through grade 12 and some nursery school students.

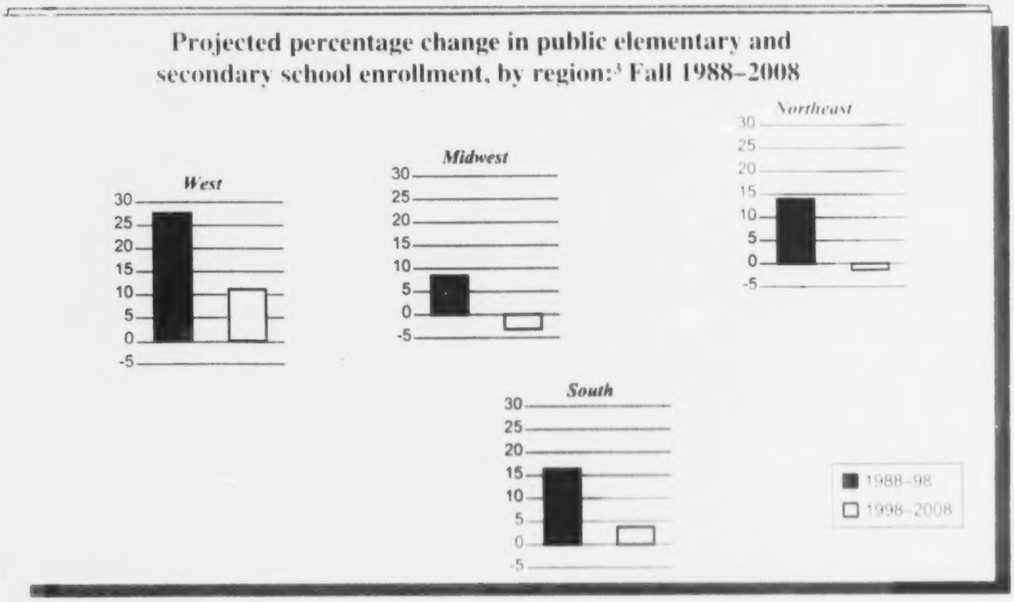
NOTE: See the note in supplemental table 45-2 for a definition of regions. Details may not add to totals due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics 1998* (based on Common Core of Data) and *Projections of Education Statistics to 2008*, 1998.

Elementary and secondary school enrollment



Elementary and secondary school enrollment, by control and grade level of school: Fall 1970–2008



Projected percentage change in public elementary and secondary school enrollment, by region:[3] Fall 1988–2008

---

[1] Enrollment includes students in kindergarten through grade 12 and some nursery school students.

[2] Beginning in fall 1980, data include estimates for the expanded universe of private schools.

[3] See the note in supplemental table 45-2 for a definition of regions.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics 1998* (based on Common Core of Data) and *Projections of Education Statistics to 2008*, 1998.

Racial and ethnic distribution of elementary and secondary students

Changes in the racial–ethnic composition of students may alter the degree of heterogeneity of language and culture in the Nation's schools. Although variety in student backgrounds and interests can enhance the learning environment, it can also create new or increased challenges for the schools. Knowledge of the shifting racial–ethnic distribution of public elementary and secondary students can give schools the foresight to plan for these challenges.

- Thirty-six percent of students enrolled in public elementary and secondary schools were considered part of a minority group in 1996, an increase of 12 percentage points from 1976. This increase was largely due to the growth in the percentage of Hispanic students (see supplemental table 46-1).

- Since 1970, black students have accounted for approximately one out of every three students who lived in central cities and attended public schools. In 1996, 10 percent of the students who lived in a metropolitan area outside of a central city and who attended public schools were black, up from 6 percent in 1970.

- In 1996, approximately one out of every four students who lived in a central city and who attended public schools was Hispanic, up from approximately 1 out of every 10 students in 1972.

- The percentage of black and Hispanic students enrolled in private schools increased between 1972 and 1996, rising from 5 percent each for both black and Hispanic students in 1972 to 9 percent for black students and 8 percent for Hispanic students in 1996.

Percentage of students in grades 1–12 who were black or Hispanic, by control of school and place of residence: 1970–96

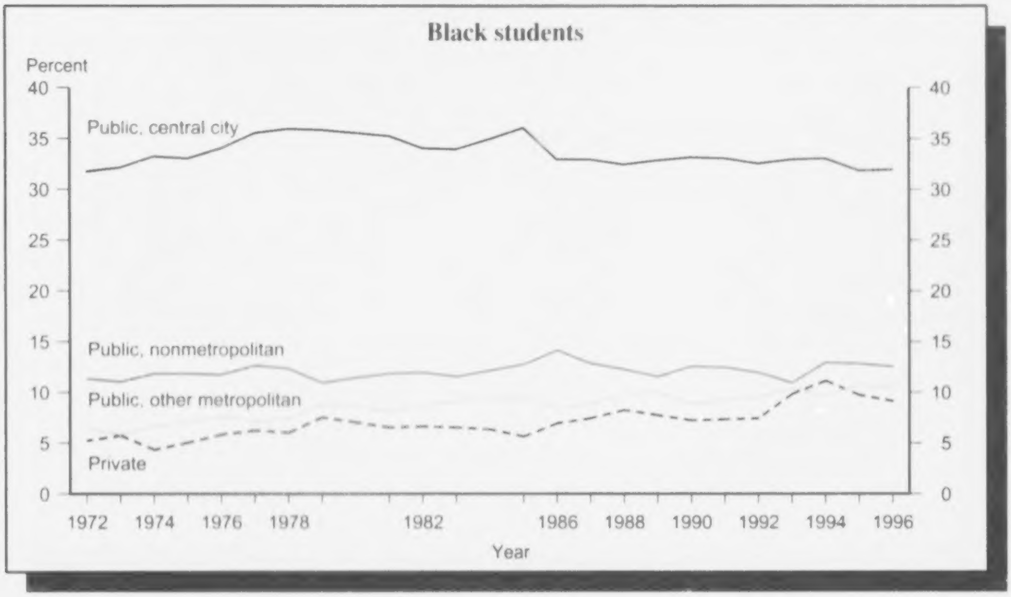
	Black					Hispanic				
	Public schools					Public schools				
Year	Total	Central city	Other metropolitan	Nonmetropolitan	Private schools	Total	Central city	Other metropolitan	Nonmetropolitan	Private schools
1970	14.8	32.5	6.2	12.0	4.7	—	—	—	—	—
1972	14.9	31.7	6.3	11.3	5.2	5.8	10.8	4.4	3.6	4.7
1974	15.4	33.2	6.6	11.8	4.3	6.2	11.4	4.4	4.4	7.3
1976	16.0	34.0	7.6	11.7	5.8	6.6	11.4	5.9	3.7	5.4
1978	16.1	35.9	7.4	12.3	6.0	6.4	11.9	6.1	3.0	5.2
1979	16.1	35.8	8.8	10.9	7.5	6.8	14.0	5.3	3.5	5.5
1982	16.2	34.0	8.6	11.9	6.6	8.7	17.7	7.0	4.3	7.3
1985	17.0	36.0	9.5	12.7	5.6	10.1	21.5	8.6	4.2	6.1
1986	16.7	32.9	8.3	14.1	6.9	10.6	20.2	8.3	4.1	7.0
1988	16.8	32.4	9.8	12.2	8.2	10.8	19.2	9.0	4.7	6.7
1990	16.5	33.1	8.8	12.5	7.2	11.6	19.8	10.8	4.0	7.2
1991	16.7	33.0	9.2	12.4	7.3	11.7	20.6	10.5	3.5	7.1
1992	16.7	32.5	9.5	11.9	7.4	11.9	20.8	10.9	3.6	7.7
1993	16.7	32.9	10.4	10.9	9.8	11.9	21.6	9.9	5.1	7.1
1994	16.8	33.0	9.6	12.9	11.1	13.4	24.7	11.1	5.8	9.1
1995	17.1	31.8	10.7	12.8	9.7	14.0	24.3	11.6	6.5	7.4
1996	17.0	31.9	10.4	12.5	9.1	14.3	25.0	11.3	6.9	8.3

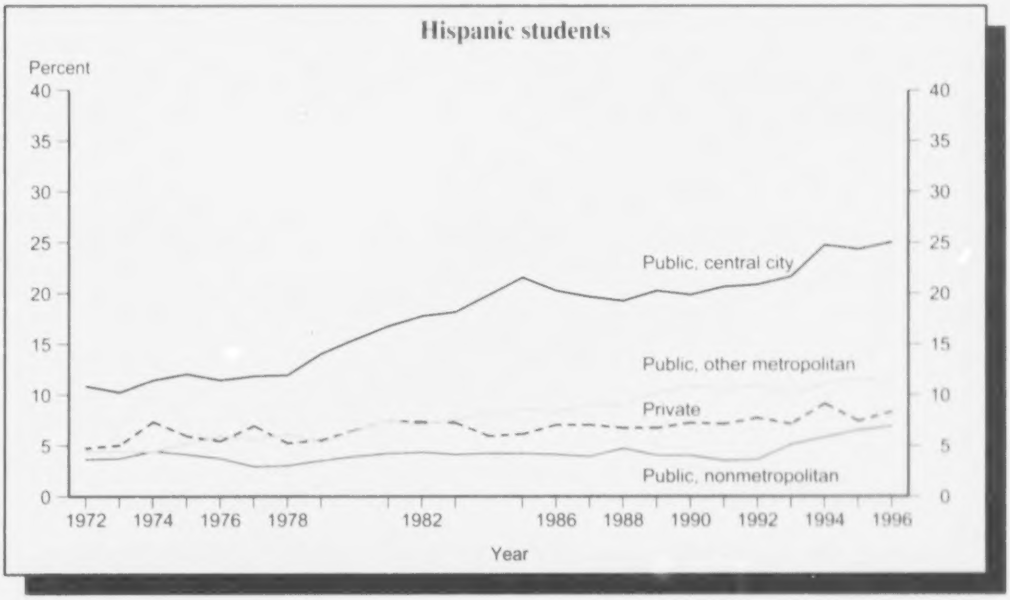
— Not available.

NOTE: The Current Population Survey (CPS) definition of metropolitan areas in the United States was changed in 1985. For data through 1984, metropolitan areas were defined on the basis of the 1970 census. A small number of students were both black and Hispanic (less than 1 percent). In 1994, the survey instrument for the CPS was changed and weights were adjusted. See the supplemental note to *Indicator 51* for further discussion.

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-20, "Level of Enrollment Below College for Persons 3 to 24 Years Old, by Control of School, Metropolitan Status, Sex, Race, and Hispanic Origin," various years; and October Current Population Surveys.

Percentage of students in grades 1–12 who were black or Hispanic, by control of school and place of residence: 1972–96





NOTE: Control of school was not available in 1980. Residence of students was not available in 1984. The Current Population Survey (CPS) definition of metropolitan areas in the United States was changed in 1985. A small number of students (less than 1 percent) were both black and Hispanic. In 1994, the survey instrument for the CPS was changed and weights were adjusted. See the supplemental note to *Indicator 51* for further discussion.

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-20, "Level of Enrollment Below College for Persons 3 to 24 Years Old, by Control of School, Metropolitan Status, Sex, Race, and Hispanic Origin," various years; and October Current Population Surveys.

Racial–ethnic isolation of students in public schools

The nine-year period from 1987–88 through 1996–97 saw increasing percentages of minority students among enrollments overall in American public elementary and secondary schools. In the midst of these changes, students from different minority groups may have become more isolated from whites. There are several ways to measure isolation of racial–ethnic groups, one of which is the "exposure index," the average percentage of students who are white in schools attended by the average black, Hispanic, or Asian student.

- Overall, between fall 1987 and fall 1996, the exposure of minorities to white students decreased. By fall 1996, when white students comprised 64 percent of the nation's enrollment in elementary and secondary schools, one-third or less of the students in a typical black or Hispanic student's school were white.

- Black students' exposure to white students declined most in the border states and the South. Hispanic students' exposure to white non-Hispanic students was lowest in the South and Northeast, but it declined most in the border states and the West between fall 1987 and fall 1996 (see supplemental tables 47-1 and 47-2).

- Asian/Pacific Islander students were substantially less isolated from white students than were black and Hispanic students. However, between fall 1987 and fall 1996, Asian/Pacific Islander student's exposure to white students declined by more percentage points than black and Hispanic students.

- White enrollment decreased as a percentage of total enrollment in all regions between fall 1987 and fall 1996. When these changes are taken into account using the relative measure, the increases in racial isolation are smaller. In fact, when this relative measure is applied by region, racial isolation is actually reduced in some regions (the West for black students and the South and Northeast for Hispanic students—see supplemental table 47-2).

Average percentage of white students in a minority student's school within the 48 contiguous states, by race–ethnicity: Fall 1987–96

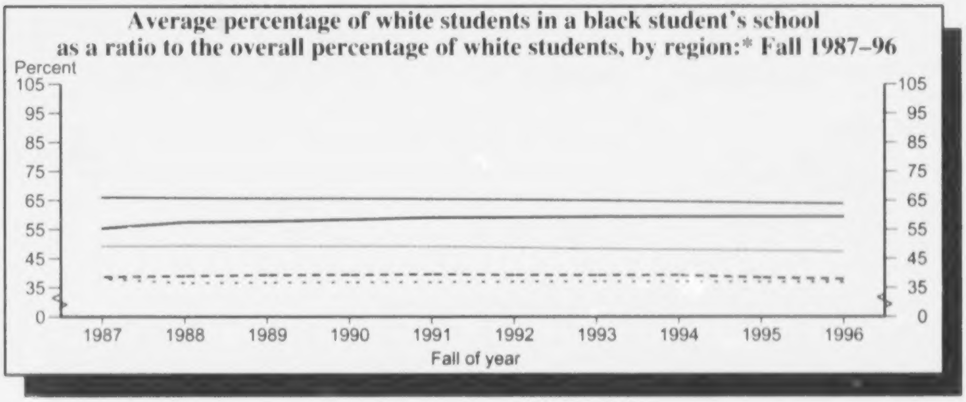
		Average percentage of white students in a minority student's school*					
		Absolute measure			Relative measure: As a ratio to the overall percentage of white students		
Fall	Total percentage of white students	Black	Hispanic	Asian/ Pacific Islander	Black	Hispanic	Asian/ Pacific Islander
1987	69.6	35.9	33.3	55.2	51.6	47.8	79.3
1988	69.0	35.6	32.9	54.4	51.6	47.7	78.8
1989	68.4	35.4	32.3	53.7	51.8	47.2	78.5
1990	67.8	35.2	31.9	53.0	51.9	47.1	78.2
1991	67.3	35.0	31.6	52.4	52.0	47.0	77.9
1992	66.7	34.7	31.3	51.6	52.0	46.9	77.4
1993	66.1	34.2	31.0	51.0	51.7	46.9	77.2
1994	65.5	33.8	30.7	50.4	51.6	46.9	76.9
1995	64.8	33.2	30.3	49.8	51.2	46.8	76.9
1996	64.1	32.7	29.9	49.3	51.0	46.6	76.9
Percentage point change	-5.5	-3.2	-3.4	-5.9	-0.6	-1.2	-2.4

* The measure for the average percentage of white students in a minority student's school, or "exposure index," is presented in this indicator in two ways. The first is an absolute measure, which is the actual exposure index, or percentage of white students in a minority student's school. The second is a relative measure, which is the ratio of the exposure index to the overall percentage of white students. The relative measure takes into account changing percentages of whites at the regional and national levels that occur simultaneously with changes in the isolation of racial-ethnic groups within schools.

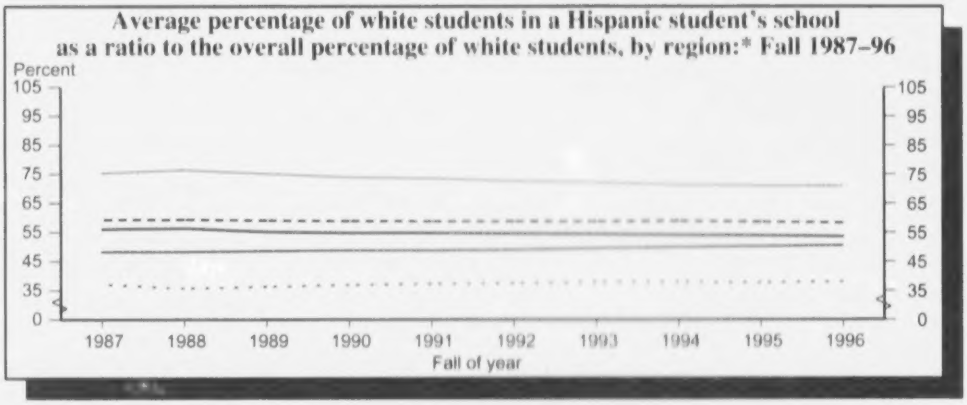
NOTE: Alaska and Hawaii are not included in the calculations for national totals. See the supplemental note to this indicator for further explanations.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, Longitudinal Research File (School File).

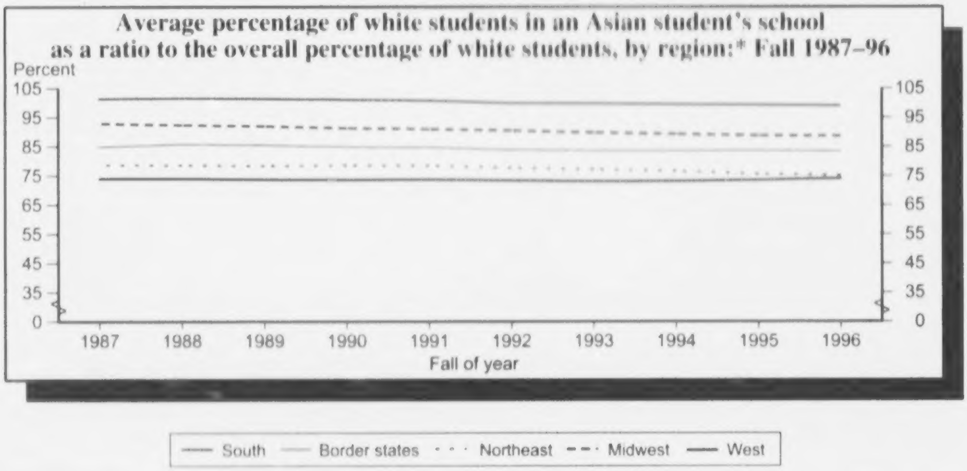
Average percentage of white students in a minority student's school, by race–ethnicity and region: Fall 1987–96



Average percentage of white students in a black student's school as a ratio to the overall percentage of white students, by region:* Fall 1987–96



Average percentage of white students in a Hispanic student's school as a ratio to the overall percentage of white students, by region:* Fall 1987–96



Average percentage of white students in an Asian student's school as a ratio to the overall percentage of white students, by region:* Fall 1987–96

* Alaska and Hawaii are not included. See the supplemental note to this indicator for further explanations.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, Longitudinal Research File (School File).

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College and university enrollment, by control and type of institution

Colleges and universities under public and private control offering 2- and 4-year programs address different student needs. When selecting a higher education institution, students consider various factors, including the degree programs and services the institution offers, the quality of those programs, and the costs of attendance. Fluctuations in enrollment among the different types of institutions may indicate a shift in student needs and interests.

- Between 1985 and 1992, total enrollment in all higher education institutions generally increased but has remained relatively constant since then (see supplemental table 48-1).

- The distribution of total enrollment between public and private institutions has changed little over the last two decades. Public institutions continue to enroll nearly 8 out of every 10 students. However, enrollments have shifted from 4-year public institutions to 2-year public institutions during this period.

- Between 1981 and the early 1990s, total enrollment at public 2- and 4-year institutions increased. At public 4-year institutions, total enrollment decreased slightly between 1991 and 1996; at public 2-year institutions, total enrollment followed the same pattern, with the exception of a slight increase in 1996 (see supplemental table 48-1).

- Total enrollment in private 4-year institutions increased steadily between 1985 and 1996. In contrast, total enrollment in private 2-year institutions fluctuated between 1985 and 1990, and then decreased between 1991 and 1996 (see supplemental table 48-1).

Index and percentage distribution of total enrollment in higher education, by control and type of institution: Fall 1972–96

	Index of total enrollment (1981=100)[1]					Percentage distribution of total enrollment				
Fall of year	All institutions	Public 4-year	Public 2-year	Private 4-year	Private 2-year	All institutions	Public 4-year	Public 2-year	Private 4-year	Private 2-year
1972	74.5	85.7	58.9	81.5	48.9	100.0	48.1	28.7	22.0	1.3
1974	82.6	91.0	73.3	85.0	50.3	100.0	46.0	32.1	20.7	1.2
1976	89.0	94.9	83.7	89.5	55.9	100.0	44.5	34.1	20.2	1.2
1978	91.0	95.1	86.5	93.2	65.7	100.0	43.6	34.4	20.6	1.4
1980	97.8	99.3	96.6	98.1	83.9	100.0	42.4	35.8	20.2	1.6
1981	100.0	100.0	100.0	100.0	100.0	100.0	41.8	36.2	20.1	1.9
1982	100.4	100.2	100.9	99.5	107.0	100.0	41.7	36.4	19.9	2.0
1984	99.0	100.6	95.5	101.0	106.9	100.0	42.5	35.0	20.5	2.1
1986	101.1	102.6	98.5	101.4	112.9	100.0	42.4	35.3	20.2	2.1
1988	105.5	107.3	103.0	105.8	110.3	100.0	42.5	35.4	20.2	2.0
1990	111.7	113.2	111.5	109.7	103.4	100.0	42.3	36.2	19.8	1.8
1991	116.1	114.3	120.6	112.6	104.9	100.0	41.1	37.6	19.5	1.7
1992	117.1	114.2	122.4	115.1	101.0	100.0	40.7	37.9	19.8	1.6
1993	115.6	113.3	119.1	116.0	97.0	100.0	40.9	37.3	20.2	1.6
1994	115.4	112.8	118.5	117.5	93.9	100.0	40.8	37.2	20.5	1.5
1995	115.3	112.5	117.8	118.7	91.2	100.0	40.8	37.0	20.7	1.5
1996[2]	115.6	112.4	117.9	120.4	90.9	100.0	40.6	36.9	21.0	1.5

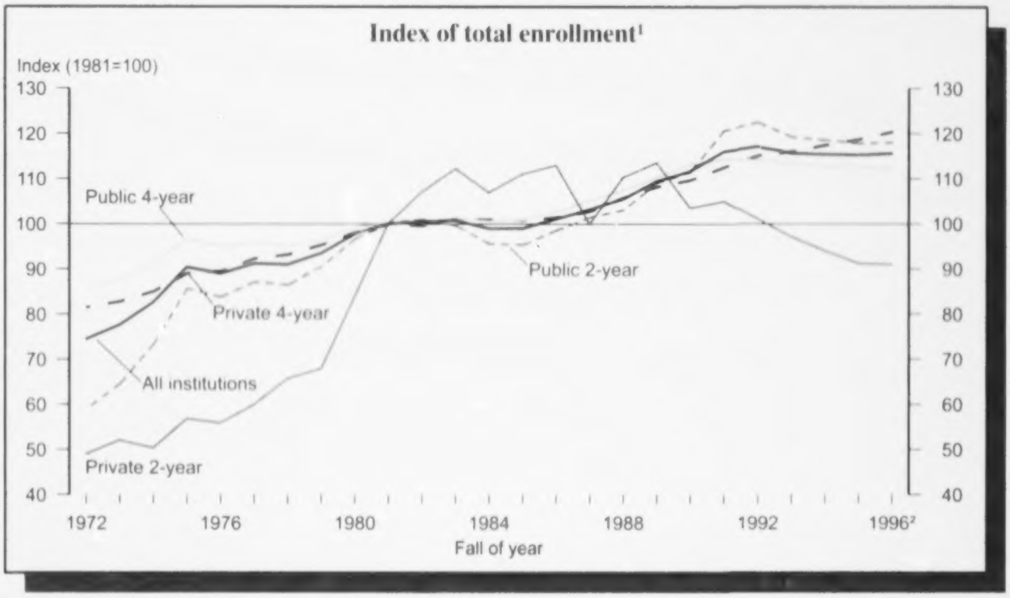
[1] The index of total enrollment in higher education is calculated as the number of students enrolled in higher education institutions in a given year divided by the number of students enrolled in higher education institutions for the year 1981. A value greater than 100 indicates that more students were enrolled in higher education institutions that year than in 1981, while a value less than 100 indicates that fewer students were enrolled that year relative to 1981.

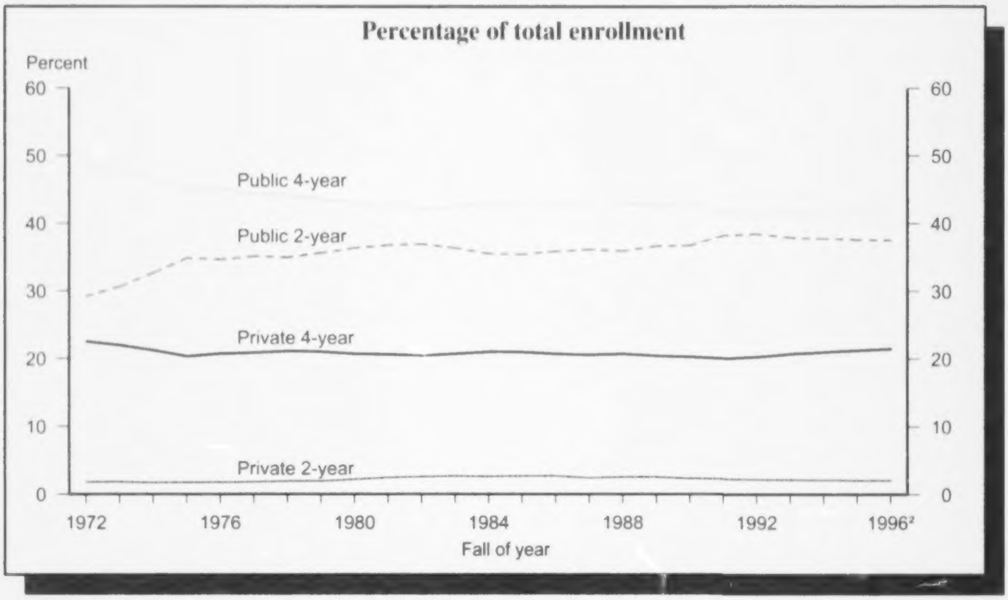
[2] Preliminary data.

NOTE: Details may not add to 100.0 due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics 1998* (based on IPEDS "Fall Enrollment" surveys).

Total enrollment in higher education, by control and type of institution: Fall 1972–96





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[1] The index of total enrollment in higher education is calculated as the number of students enrolled in higher education institutions in a given year divided by the number of students enrolled in higher education institutions for the year 1981. A value greater than 100 indicates that more students were enrolled in higher education institutions that year than in 1981, while a value less than 100 indicates that fewer students were enrolled that year relative to 1981.

[2] Preliminary data.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics 1998* (based on IPEDS "Fall Enrollment" surveys).

Racial and ethnic distribution of college enrollments

Colleges and universities seek diversity among their student bodies; variety in the backgrounds and interests of students can enhance the learning environment. The racial–ethnic mix of college students is one aspect of a diverse student body. Variations in the racial–ethnic composition of college enrollment suggest differences in the needs, interests, and backgrounds of the student population.

- The student body in the Nation's colleges and universities has become increasingly heterogeneous since the mid-1970s. The percentage of minority students increased from 15 percent of all students in fall 1976 to 25 percent in fall 1996. This increase was due primarily to the growth in the enrollment of Hispanic and Asian/Pacific Islander students, whose enrollment as a percentage of all college students increased about 4 percentage points for each group.

- Black students accounted for 11 percent of the total enrollment at colleges and universities in fall 1996. Hispanics made up 8 percent of enrolled students; Asian/Pacific Islanders, 6 percent; and American Indian/Alaskan Natives, 1 percent.

- In fall 1996, minority students made up a greater proportion of the student body at public 2-year than at all 4-year institutions (30 versus 22 percent, respectively; see supplemental table 49-1).

- In fall 1996, the percentages of public 2-year college students who were black and Hispanic were similar (11 and 12 percent, respectively). However, the percentage of students enrolled in all 4-year institutions who were black was higher than the percentage enrolled who were Hispanic (10 and 6 percent, respectively).

Percentage distribution of total enrollment in higher education institutions, by race–ethnicity and control and type of institution: Fall 1976–96

	U.S. residents[1]						
		Minority					
Fall of year and control and type of institution	White	Total minority	Black	Hispanic	Asian/Pacific Islander	American Indian/Alaskan Native	Nonresident alien
				All institutions			
1976	82.6	15.4	9.4	3.5	1.8	0.7	2.0
1978	81.9	15.9	9.4	3.7	2.1	0.7	2.3
1980	81.4	16.1	9.2	3.9	2.4	0.7	2.5
1982	80.7	16.6	8.9	4.2	2.8	0.7	2.7
1984	80.2	17.0	8.8	4.4	3.2	0.7	2.7
1986	79.3	17.9	8.7	4.9	3.6	0.7	2.8
1988	78.8	18.4	8.7	5.2	3.8	0.7	2.8
1990	77.6	19.6	9.0	5.7	4.1	0.7	2.8
1991	76.5	20.6	9.3	6.0	4.4	0.8	2.9
1992	75.1	21.8	9.6	6.6	4.8	0.8	3.1
1993	74.1	22.7	9.9	6.9	5.1	0.9	3.2
1994	73.0	23.8	10.1	7.3	5.4	0.9	3.2
1995	72.3	24.5	10.3	7.7	5.6	0.9	3.2
1996[2]	71.5	25.2	10.5	8.1	5.8	0.9	3.3
				By control and type of institution: Fall 1996[2]			
Public	70.8	26.5	10.6	8.9	5.9	1.0	2.7
Private	74.1	20.9	10.0	5.1	5.2	0.6	5.0
4-year	73.6	22.1	9.9	5.8	5.7	0.8	4.2
Public	73.4	22.9	10.0	6.2	5.9	0.9	3.7
Private	74.2	20.5	9.7	5.0	5.3	0.5	5.3
2-year public	67.9	30.4	11.3	11.9	6.0	1.2	1.7

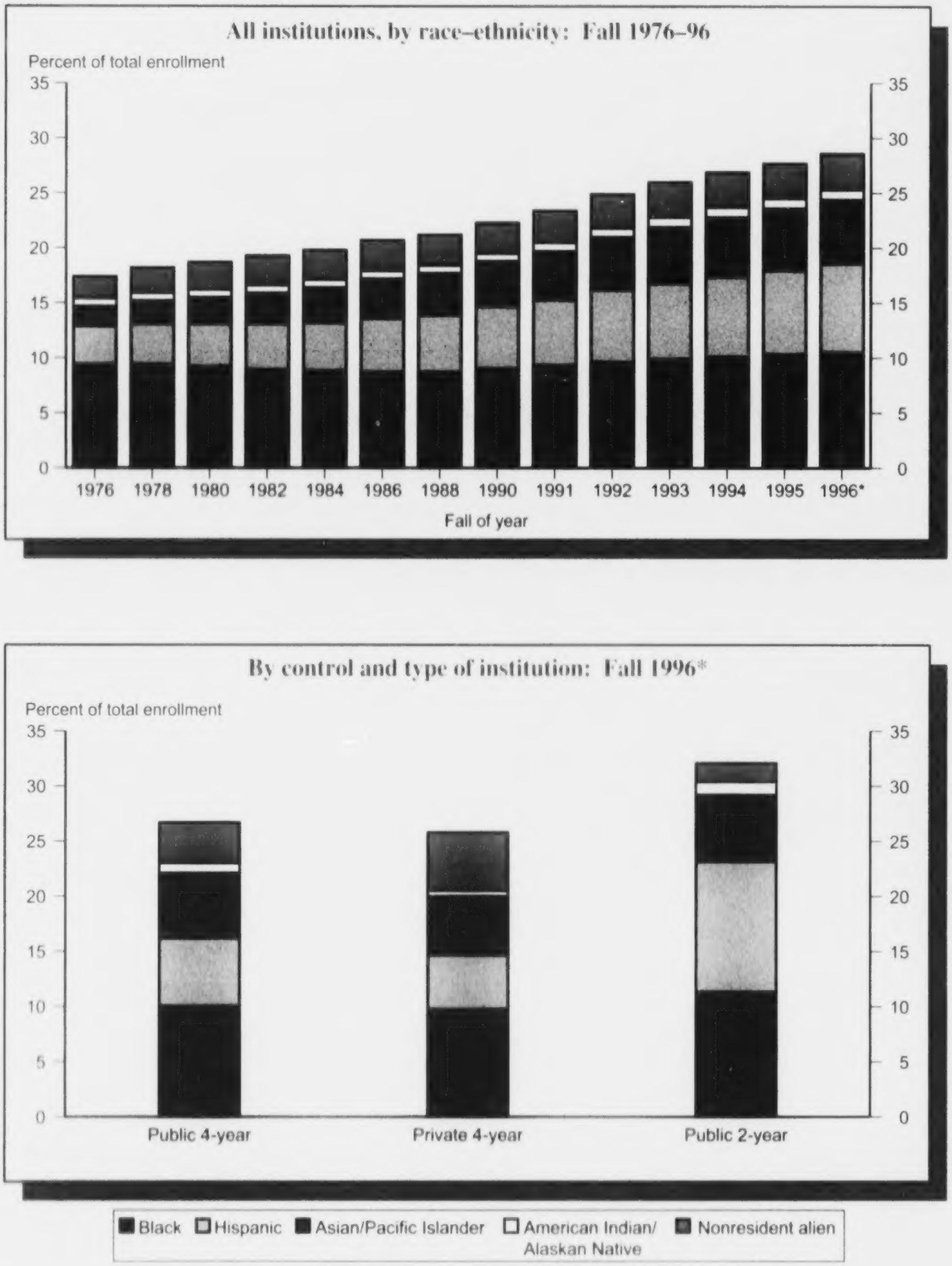
[1] Includes U.S. citizens and resident aliens.

[2] Estimates based on preliminary data.

NOTE: Details may not add to totals due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics*, various years (based on the IPEDS "Fall Enrollment" surveys).

Percentage of minority and nonresident alien enrollment in higher education institutions



* Estimates based on preliminary data.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics*, various years (based on the IPEDS "Fall Enrollment" surveys).

Enrollment characteristics of graduate and first-professional students

Graduate and first-professional programs constitute an important segment of higher education, with 2.8 million students enrolled during the 1995–96 academic year. Graduate and first-professional students do not constitute a homogeneous group. The enrollment patterns of students in different degree programs illustrate the various ways in which students combine school and work.

- Graduate enrollment at the master's level is primarily a part-time activity. The majority of students seeking MBA degrees, master's degrees in education, and MA/MS degrees in fields other than education enrolled less than full time for the full year in 1995–96. About 85 percent of MBA and education master's students worked while enrolled, and 85 percent of the MBA students and 75 percent of the education master's students who worked considered themselves primarily employees rather than students.

- About half (51 percent) of all PhD students in 1995–96 enrolled full time for the full year. Although 76 percent of all PhD students worked while enrolled, 80 percent of those who worked considered themselves primarily students. In contrast, relatively few EdD students enrolled full time, full-year (16 percent); almost all (98 percent) worked while enrolled; and most of those who worked (82 percent) considered themselves primarily employees.

- Compared with graduate students in the master's and doctor's programs considered here, first-professional students in law and medicine were generally more likely to enroll immediately after earning their bachelor's degrees; more likely to enroll full time, full-year; and less likely to work while enrolled.

Percentage distribution of graduate and first-professional students, by degree program and enrollment characteristics: Academic year 1995–96

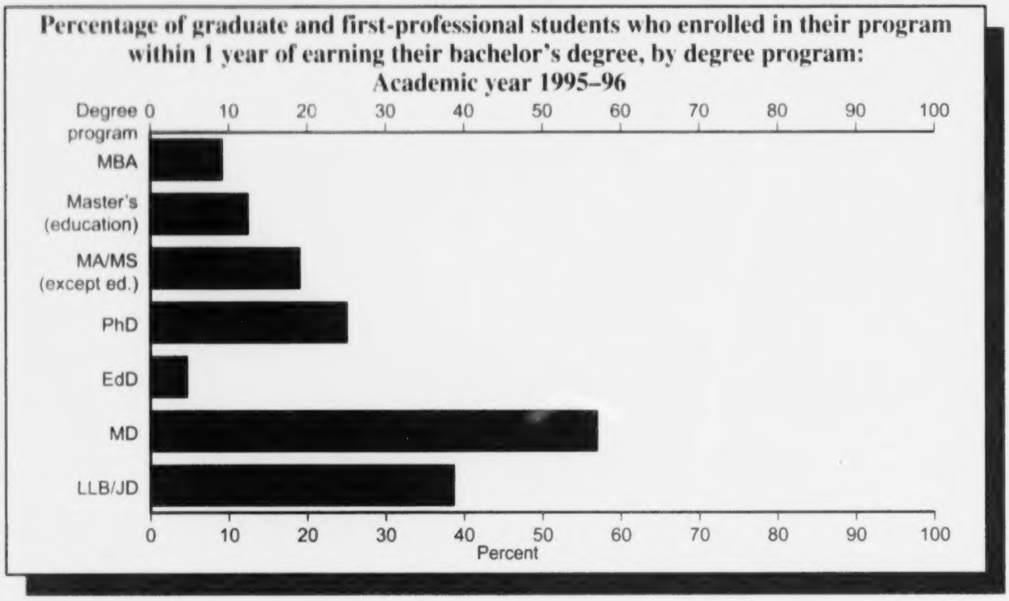
Enrollment characteristics	MBA	MAT, MEd, MA/MS in education	MA/MS (except education)	PhD	EdD	MD	Law (LLB or JD)
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Time from bachelor's degree to program enrollment							
Less than 1 year	9.1	12.4	19.0	25.0	4.6	56.9	38.6
1–2 years	29.0	22.9	24.9	26.6	2.7	24.3	33.5
3–6 years	34.1	25.9	29.8	23.3	14.0	8.4	19.1
7 years or more	27.7	38.9	26.3	25.1	78.7	10.5	8.8
Attendance pattern							
Full-time, full-year	24.0	15.9	27.8	51.3	15.7	92.9	77.4
Part-time, full-year	46.7	45.0	39.5	36.3	49.3	1.6	14.3
Part-year	29.3	39.1	32.7	12.4	35.0	5.5	8.3
Employment status							
Worked at all	87.2	85.9	83.2	75.7	97.5	30.8	56.1
Worked full time if worked*	76.3	67.3	47.5	32.3	82.6	15.0	16.9
Primary role if working							
Student working to meet expenses	15.1	25.0	57.1	80.0	17.7	87.5	82.5
Employee enrolled in school	84.9	75.0	42.9	20.0	82.3	12.5	17.5

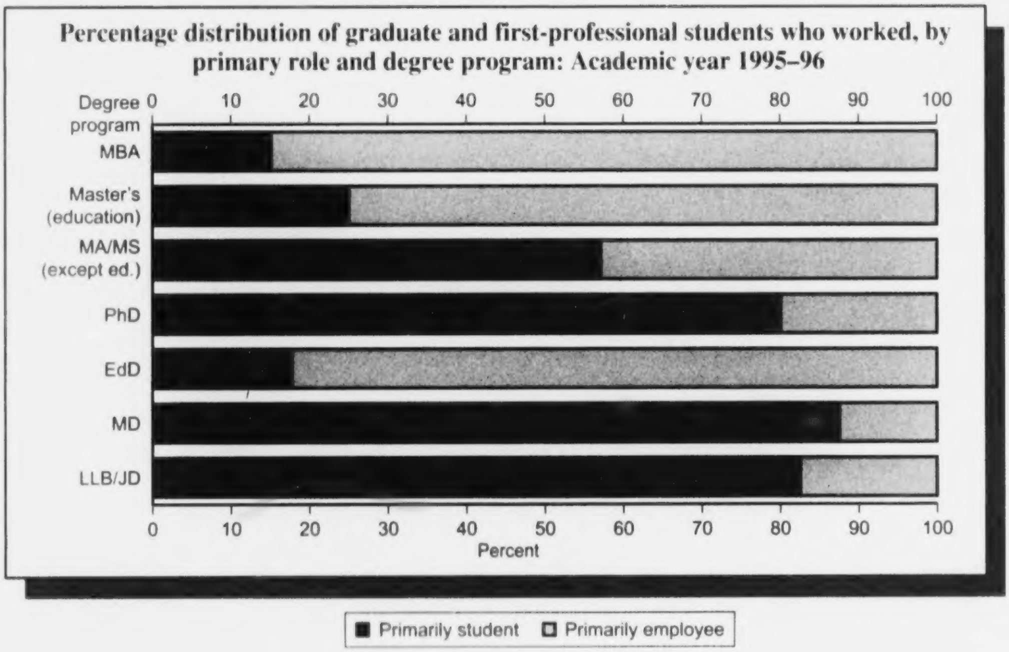
* Full-time employment is defined as working 35 or more hours per week.

NOTE: Details may not add to 100.0 due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1995–96, Graduate Data Analysis System.

Enrollment characteristics of graduate and first-professional students


Percentage of graduate and first-professional students who enrolled in their program within 1 year of earning their bachelor's degree, by degree program: Academic year 1995–96


Percentage distribution of graduate and first-professional students who worked, by primary role and degree program: Academic year 1995–96

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1995–96, Graduate Data Analysis System.

Recent school dropouts

Students who drop out of school have fewer opportunities to succeed in the work force or to assume a fully functional place in society at large than those students who complete high school. The event dropout rate, a measure of the proportion of students who drop out in a single year without completing high school, is one of several ways to define dropout rates.

- In October 1997, 5 percent of students who were in grades 10–12 the previous October were not enrolled and had not completed high school—that is, they had dropped out of high school sometime during the year.
- Between 1972 and 1997, the dropout rates for whites and blacks decreased, while the dropout rate for Hispanics did not change significantly. During this period, the dropout rate for blacks decreased at a faster rate than that for whites.
- Generally, between 1972 and 1997, students in grades 10–12 from low-income families were more likely to drop out of high school than were their counterparts from middle- and high-income families.
- Between 1990 and 1997, students in grades 10–12 whose parents did not complete high school had a substantially higher dropout rate than did those whose parents had attained a bachelor's degree (see supplemental table 51-1).

Event dropout rates[1] for those in grades 10–12, ages 15–24, by sex, race–ethnicity, and family income: October 1972–97

		Sex		Race–ethnicity[2]			Family income[3]		
October	Total	Male	Female	White	Black	Hispanic	Low	Middle	High
1972	6.1	5.9	6.3	5.3	9.5	11.2	14.1	6.7	2.5
1974	6.7	7.4	6.0	5.8	11.6	9.9	—	—	—
1976	5.9	6.6	5.2	5.6	7.4	7.3	15.4	6.8	2.1
1978	6.7	7.5	5.9	5.8	10.2	12.3	17.4	7.3	3.0
1980	6.1	6.7	5.5	5.2	8.2	11.7	15.8	6.4	2.5
1982	5.5	5.8	5.1	4.7	7.8	9.2	15.2	5.6	1.8
1984	5.1	5.4	4.8	4.4	5.7	11.1	13.9	5.1	1.8
1986	4.7	4.7	4.7	3.7	5.4	11.9	10.9	5.1	1.6
1988	4.8	5.1	4.4	4.2	5.9	10.4	13.7	4.7	1.3
1990	4.0	4.0	3.9	3.3	5.0	7.9	9.5	4.3	1.1
1991	4.0	3.8	4.2	3.2	6.0	7.3	10.6	4.0	1.0
1992	4.4	3.9	4.9	3.7	5.0	8.2	10.9	4.4	1.3
1993	4.5	4.6	4.3	3.9	5.8	6.7	12.3	4.3	1.3
1994[4]	5.3	5.2	5.4	4.2	6.6	10.0	13.0	5.2	2.1
1995[4]	5.7	6.2	5.3	4.5	6.4	12.4	13.3	5.7	2.0
1996[4]	5.0	5.0	5.1	4.1	6.7	9.0	11.1	5.1	2.1
1997[4]	4.6	5.0	4.1	3.6	5.0	9.5	12.3	4.1	1.8

— Not available.

[1] The event dropout rate is the percentage of those in grades 10–12, ages 15–24, who were enrolled the previous October, but who were not enrolled and had not graduated in October of the current year.

[2] Included in the total but not shown separately are dropouts from other racial–ethnic groups.

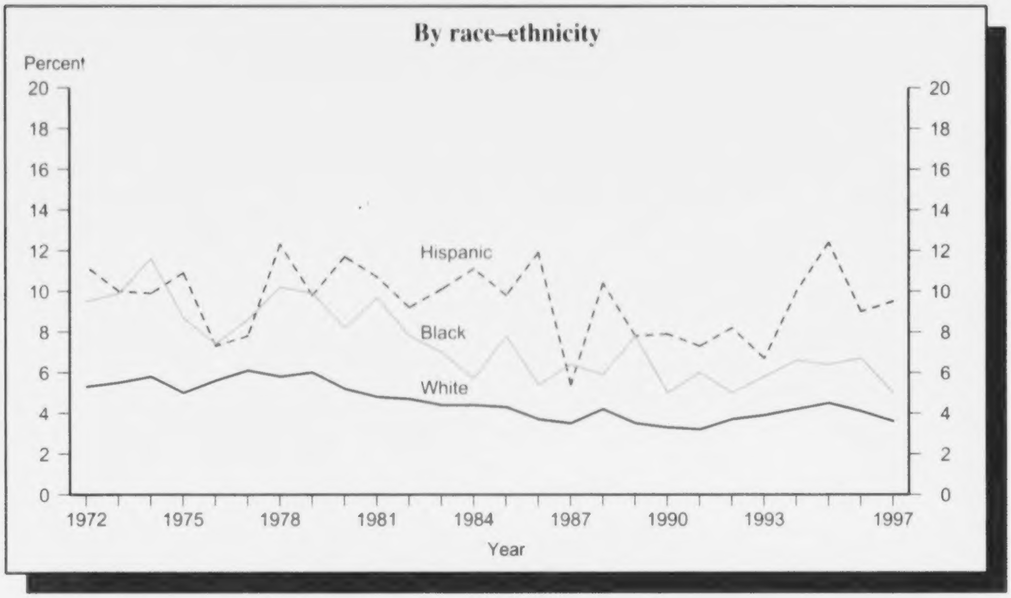
[3] Low income is the bottom 20 percent of all family incomes; high income is the top 20 percent of all family incomes; and middle income is the 60 percent in between. See the supplemental note to *Indicator 53* for further discussion.

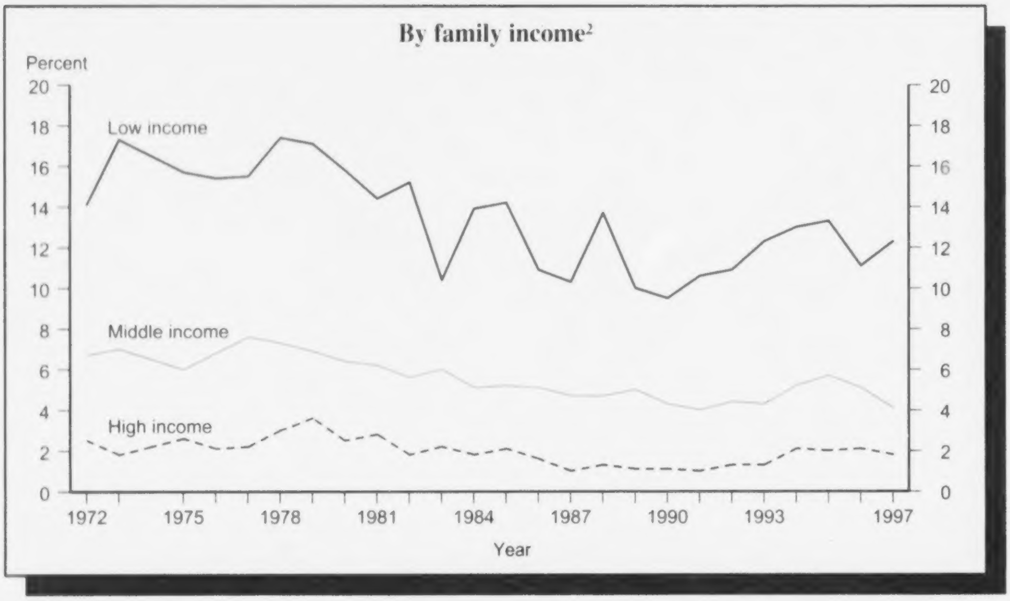
[4] In 1994, the survey instrument for the Current Population Survey (CPS) was changed and weights were adjusted. See the supplemental note to this indicator for further discussion.

NOTE: Beginning in 1992, the Current Population Survey (CPS) changed the questions used to obtain the educational attainment of respondents. See the supplemental note to *Indicator 59* for further discussion.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Dropout Rates in the United States, 1997*, 1999 (based on the October Current Population Surveys).

Event dropout rates[1] for those in grades 10–12, ages 15–24: October 1972–97





[1] The event dropout rate is the percentage of those in grades 10–12, ages 15–24, who were enrolled the previous October, but who were not enrolled and had not graduated in October of the current year.

[2] Low income is the bottom 20 percent of all family incomes; high income is the top 20 percent of all family incomes; and middle income is the 60 percent in between. See the supplemental note to *Indicator 53* for further discussion. Data on family income were not available for 1974.

NOTE: In 1994, the survey instrument for the Current Population Survey (CPS) was changed and weights were adjusted. See the supplemental note to this indicator for further discussion. Beginning in 1992, the Current Population Survey (CPS) changed the questions used to obtain the educational attainment of respondents. See the supplemental note to *Indicator 59* for further discussion.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Dropout Rates in the United States, 1997*, 1999 (based on the October Current Population Surveys).

High school dropouts, by race–ethnicity and recency of migration

As a whole, Hispanics drop out of high school at higher rates and attain lower levels of education than non-Hispanics. The relative recency of migration among Hispanics may at least partially account for this trend. Evidence of the undereducation of Hispanics has implications for developing retention strategies as well as for assessing the educational and training needs of the population. The status dropout rate for an age group (the percentage of that age group that is not enrolled in school and has not completed high school) is one measure of dropping out.

- In 1997, a greater percentage of Hispanics than non-Hispanics ages 16–24 were born outside the United States (see supplemental table 52-1). Among this group, the status dropout rate (39 percent) was higher than it was among first- and later-generation Hispanics (15 and 18 percent, respectively). First- and later-generation Hispanics were two to three times more likely than their non-Hispanic peers to drop out.
- In 1997, the percentage of 25- to 34-year-olds who were dropouts was lower than it was in 1989 or 1979. Similar changes are occurring for all groups. The gaps in dropout rates between non-U.S.-born, first-generation, and later-generation Hispanics and comparable non-Hispanics were generally similar in 1979, 1989, and 1997.

Percentage of 16- to 24-year-olds who were not enrolled in school and had not completed high school, by recency of migration and race–ethnicity: October 1997

		Hispanic			Non-Hispanic			
Recency of migration	Total	Total	Mexican	Other Hispanic	Total	White	Black	Asian/ Pacific Islander
Total	**11.0**	**25.3**	**27.5**	**21.3**	**8.6**	**7.6**	**13.4**	**6.9**
Born outside 50 states/D.C.	23.5	38.6	44.3	29.6	7.8	5.4	9.2	9.4
First generation	10.0	15.4	17.0	7.9	5.0	5.6	6.2	2.5
Later generation	9.3	17.7	18.3	14.2	9.0	7.8	14.1	5.3

Percentage of 25- to 34-year-olds who were not enrolled in school and had not completed high school, by year and recency of migration and race–ethnicity: November 1979 and 1989 and October 1997

		Hispanic			Non-Hispanic			
Year and recency of migration	Total	Total	Mexican	Other Hispanic	Total	White	Black	Asian/ Pacific Islander
1979 Total*	**14.9**	**45.4**	**51.2**	**24.6**	**13.0**	**11.5**	**24.1**	—
Born outside 50 states/D.C.	34.4	59.9	74.8	30.6	16.1	18.6	15.3	—
First generation	12.3	30.8	35.3	4.3	8.2	7.8	18.1	—
Later generation	13.5	29.9	32.8	18.3	13.1	11.5	24.4	—
1989 Total*	**13.1**	**39.1**	**45.9**	**27.6**	**10.5**	**9.1**	**18.9**	**10.5**
Born outside 50 states/D.C.	31.8	51.8	69.9	28.6	11.5	10.2	14.2	12.3
First generation	10.5	25.3	25.2	28.5	4.5	4.0	8.9	5.9
Later generation	11.2	23.0	23.7	19.7	10.8	9.4	19.3	3.9
1997 Total*	**11.9**	**38.5**	**46.2**	**27.8**	**7.7**	**6.6**	**12.2**	**9.3**
Born outside 50 states/D.C.	30.8	49.5	60.0	34.2	10.3	7.6	16.7	10.7
First generation	9.5	16.4	22.8	3.2	5.8	5.7	9.9	3.9
Later generation	8.1	24.0	26.8	12.5	7.5	6.6	11.9	3.2

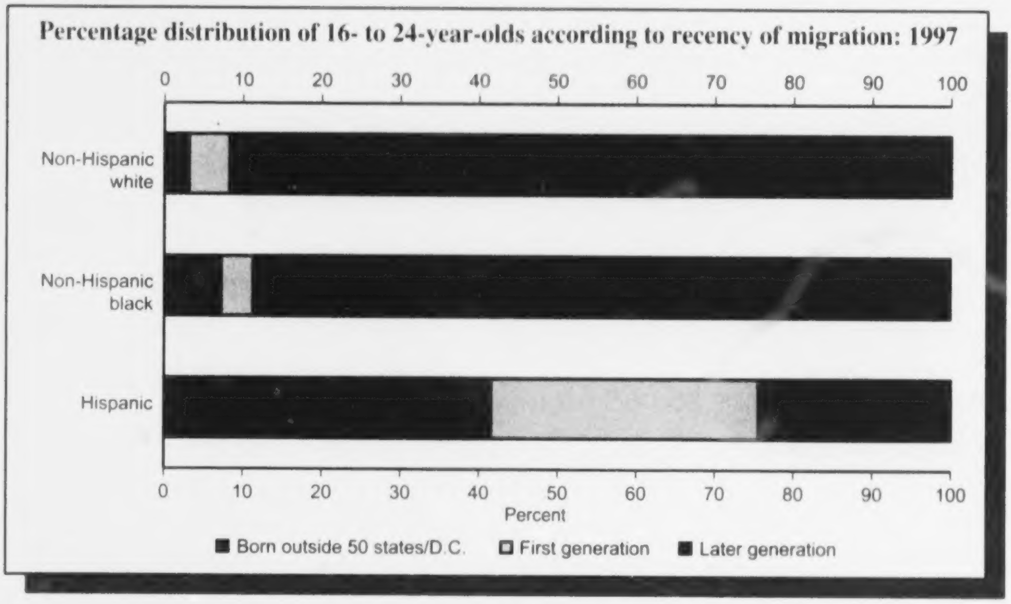
— Not available.

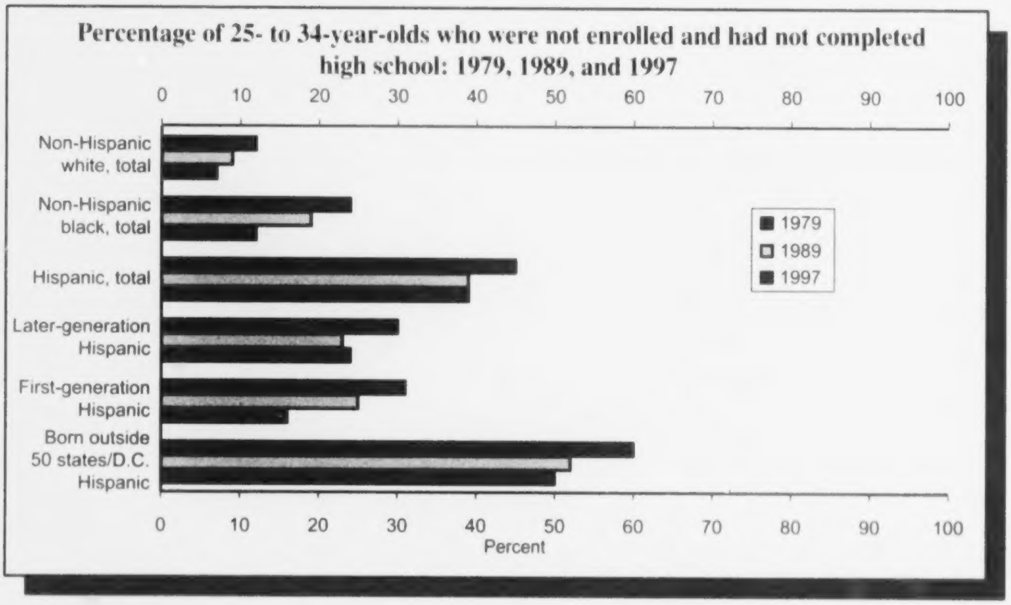
* Total includes a small proportion for whom recency of migration is unknown.

NOTE: People born in Puerto Rico and the U.S. territories are considered born in other countries. Individuals are classified as first generation if they were born in one of the 50 states or Washington, D.C., and at least one of their parents was not. Later generation includes those who were born in one of the 50 states or Washington, D.C., as were both of their parents.

SOURCE: U.S. Department of Commerce, Bureau of the Census, Current Population Survey, November 1979 and 1989, and October 1997.

High school dropouts, by race–ethnicity and recency of migration





NOTE: People born in Puerto Rico and the U.S. territories are considered born in other countries. Individuals are classified as first generation if they were born in one of the 50 states or Washington, D.C., and at least one of their parents was not. Later generation includes those who were born in one of the 50 states or Washington, D.C., as were both of their parents.

SOURCE: U.S. Department of Commerce, Bureau of the Census, Current Population Survey, November 1979 and 1989, and October 1997.

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Immediate transition from high school to college

> *Of those who ever attend college, most do so for the first time in the months immediately following their completion of high school. Consequently, knowing the percentage of high school completers who enroll immediately provides an estimate of the proportion of each year's graduating class that will ever attend college. Enrollment rates reflect the accessibility of higher education and the value high school completers place on such an education compared with other pursuits.*

- Between 1987 and 1997, the percentage of high school completers ages 16–24 going directly to college increased from 57 to 67 percent.
- The percentage of high school completers ages 16–24 from high-income families who went directly to college increased between 1987 and 1997, while the percentage of their counterparts from low-income families who went directly to college showed no stable pattern. Each year between 1987 and 1997, completers from high-income families were more likely than completers from low-income families to go directly to college.
- While the percentages of both white and black high school completers ages 16–24 who enrolled in college immediately following high school increased between 1973 and 1996, the rate of increase was greater for whites (see supplemental table 53-2).
- Between 1990 and 1997, the higher the education level of a student's parents, the more likely that student was to enroll in college the year after completing high school (see supplemental table 53-1).

Percentage of high school completers ages 16–24 who were enrolled in college the October after completing high school, by type of institution, family income, and race–ethnicity: October 1972–97

				Family income[1]				Race–ethnicity[2]				
		Type of institution		Low		Middle	High	White	Black		Hispanic	
October	Total	2-year	4-year	Annual	3-year average	Annual	Annual	Annual	Annual	3-year average	Annual	3-year average
1972	49.2	—	—	26.1	([3])	45.2	63.8	49.7	44.6	([3])	45.0	([3])
1975	50.7	18.2	32.6	31.2	([3])	46.2	64.5	51.1	41.7	44.4	58.0	52.5
1979	49.3	17.5	31.8	30.5	31.5	43.2	63.2	49.9	46.7	45.3	45.0	46.4
1983	52.7	19.2	33.5	34.6	34.0	45.2	70.3	55.0	38.2	37.9	54.2	47.3
1987	56.8	18.9	37.9	36.9	37.8	50.0	73.8	58.6	52.2	44.5	33.5	44.9
1990	60.1	20.1	40.0	46.7	44.7	54.4	76.6	63.0	46.8	48.9	42.7	51.7
1991	62.5	24.9	37.7	39.5	42.3	58.4	78.2	65.4	46.4	47.2	57.2	51.6
1992	61.9	23.0	38.9	40.9	43.6	57.0	79.0	64.3	48.2	50.1	55.0	58.1
1993	61.5	22.4	39.1	50.4	44.1	56.9	79.3	62.9	55.6	51.5	62.2	55.4
1994	61.9	21.0	40.9	41.0	41.9	57.8	78.4	64.5	50.8	52.5	49.1	55.0
1995	61.9	21.5	40.4	34.2	41.3	56.1	83.4	64.3	51.2	52.6	53.7	51.2
1996	65.0	23.1	41.9	48.6	46.6	62.7	78.0	67.4	56.0	55.2	50.8	56.7
1997	67.0	22.8	44.3	57.0	([3])	60.8	82.2	68.2	58.5	([3])	65.6	([3])

— Not available. Data for type of institution were not collected until 1973.

[1] Low income is the bottom 20 percent of all family incomes; high income is the top 20 percent of all family incomes; and middle income is the 60 percent in between. See the supplemental note to this indicator for further information.

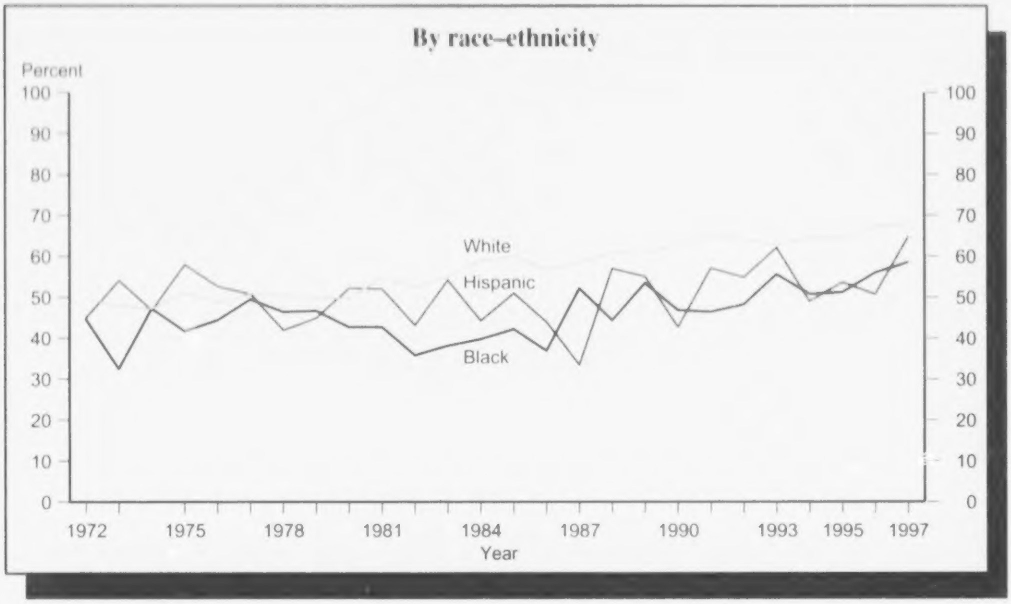
[2] Included in the total but not shown separately are high school graduates from other racial–ethnic groups.

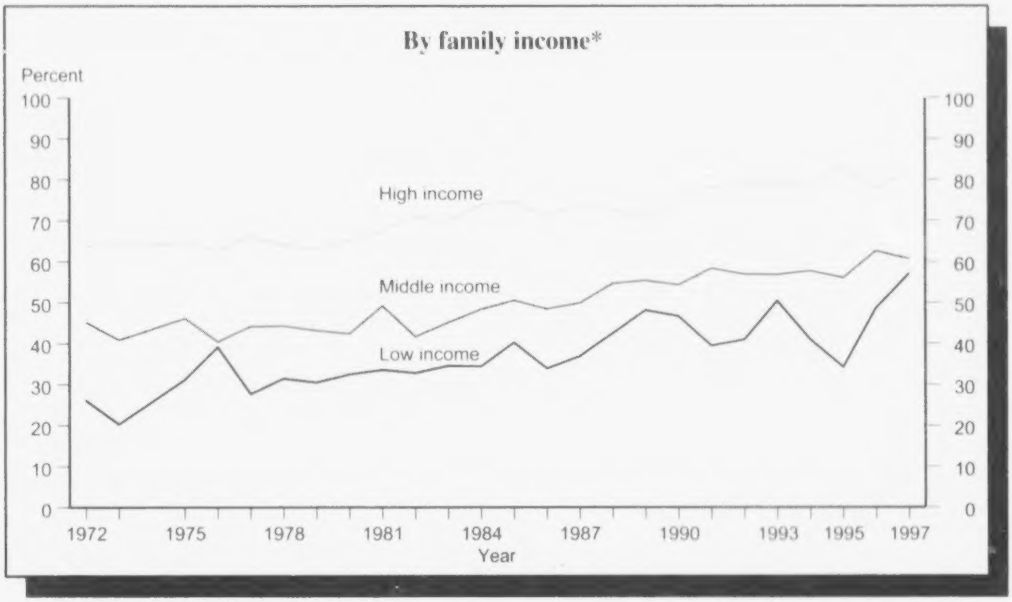
[3] Due to small sample sizes for the low-income, black, and Hispanic categories, 3-year averages were also calculated for each category. For example, the 3-year average for blacks in 1973 is the average percentage of black high school completers ages 16–24 who were enrolled in college the October after completing high school in 1972, 1973, and 1974. Thus, 3-year averages cannot be calculated for 1972 and 1997, and for groups of 3 years in which some data are not available (e.g., 1973–75 for the low-income category).

NOTE: In 1994, the survey instrument for the Current Population Survey (CPS) was changed and weights were adjusted. See the supplemental note to *Indicator 51* for further discussion. Details may not add to totals due to rounding.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Percentage of high school completers ages 16–24 who were enrolled in college the October after completing high school, by race–ethnicity and family income: October 1972–97


By race–ethnicity


By family income*

* Low income is the bottom 20 percent of all family incomes; high income is the top 20 percent of all family incomes; and middle income is the 60 percent in between. See supplemental note to this indicator for futher discussion. Data on family income were not available in 1974.

NOTE: In 1994, the survey instrument for the Current Population Survey (CPS) was changed and weights were adjusted. See the supplemental note to *Indicator 51* for further discussion.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Racial and ethnic differences in the transition to college

Racial and ethnic differences in college enrollment rates reflect differences in access to and persistence in higher education for groups with varying social and economic backgrounds. Differing enrollment rates are also an indicator of future differences in the earnings and productivity associated with postsecondary education. The college enrollment rates for 18- to 24-year-olds are influenced by the number who enroll immediately after completing high school, the number who delay entry, and the number of years individuals in both these groups stay in higher education.

- In 1997, white high school completers ages 18–24 were more likely to be enrolled in college (46 percent) than their black and Hispanic counterparts, although blacks and Hispanics ages 18–24 showed similar rates of college enrollment (39 and 36 percent, respectively). In contrast, in the mid- to late 1970s, white, black, and Hispanic completers showed similar rates of college enrollment.
- The percentage of high school completers ages 18–24 who were enrolled in college was higher in 1997 than in 1972. In 1997, college enrollment rates for whites, blacks, and Hispanics were 14, 12, and 10 percentage points higher, respectively, than they were in 1972.
- In 1997, college enrollment rates in 2-year institutions were similar for white, black, and Hispanic high school completers ages 18–24. In contrast, black and Hispanic high school completers ages 18–24 were less likely than their white counterparts to be enrolled in 4-year institutions (see supplemental table 54-1).
- In 1997, college enrollment rates were similar for white, black, and Hispanic high school completers ages 25–34 (9 percent for both whites and blacks and 8 percent for Hispanics). The college enrollment rates of high school completers age 35 and older showed a different pattern, however, with black high school completers in this age group being slightly more likely to be enrolled in college than their white peers.

Percentage of high school completers enrolled in college, by age and race–ethnicity: October 1972–97

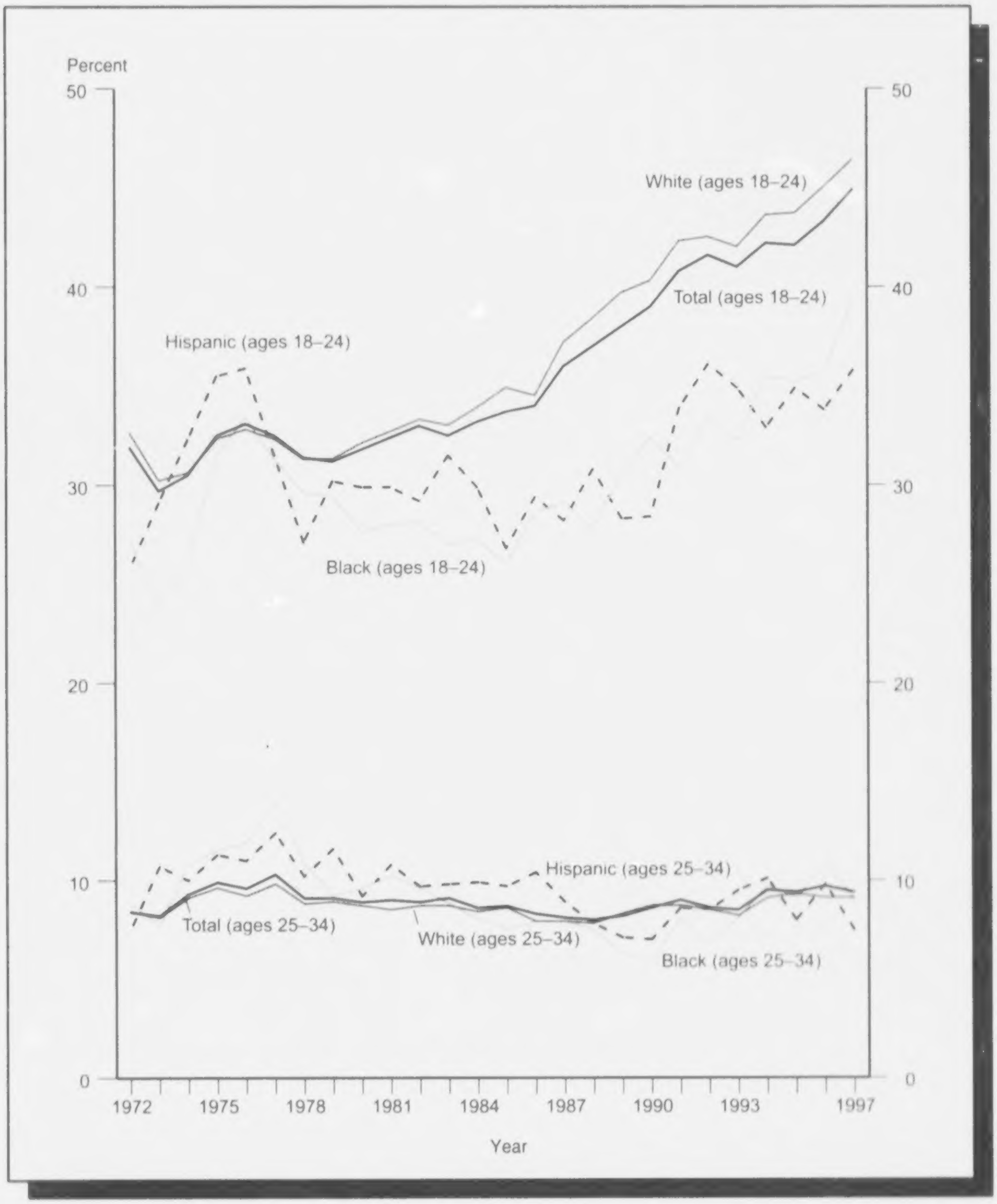
	Ages 18–24				Ages 25–34				Age 35 or older			
October	Total	White	Black	Hispanic	Total	White	Black	Hispanic	Total	White	Black	Hispanic
1972	31.9	32.6	27.2	25.8	8.4	8.4	8.8	7.5	—	—	—	—
1974	30.5	30.6	26.2	32.3	9.3	9.1	10.8	10.0	—	—	—	—
1976	33.1	32.8	33.4	35.9	9.6	9.2	11.9	11.0	2.3	2.1	4.1	3.9
1978	31.4	31.3	29.6	27.1	9.1	8.8	10.8	10.2	2.4	2.2	3.8	4.2
1980	31.8	32.1	27.6	29.9	8.9	8.7	9.6	9.2	2.1	2.0	3.4	2.9
1982	33.0	33.3	28.1	29.2	8.9	8.7	9.6	9.7	2.2	2.1	2.7	2.9
1984	33.2	33.9	27.2	29.9	8.6	8.4	8.0	9.9	2.1	2.0	2.7	1.8
1986	34.0	34.5	28.6	29.4	8.3	7.9	7.9	10.4	2.4	2.2	3.3	3.4
1988	37.0	38.4	27.8	30.8	8.0	7.8	7.5	7.8	2.7	2.6	3.3	3.4
1990	39.0	40.3	32.4	28.4	8.6	8.7	5.9	7.0	2.7	2.6	2.9	3.9
1991	40.8	42.3	30.8	33.9	9.0	8.7	8.1	8.6	2.7	2.6	3.4	2.9
1992	41.6	42.5	33.4	36.1	8.6	8.5	6.7	8.5	2.5	2.5	2.6	2.7
1993	41.0	42.0	32.2	34.9	8.5	8.2	8.1	9.5	2.6	2.4	3.3	3.1
1994	42.2	43.6	35.5	32.9	9.5	9.1	9.7	10.1	2.7	2.5	3.5	4.3
1995	42.1	43.7	35.2	34.9	9.4	9.3	9.1	8.0	2.6	2.4	3.5	3.8
1996	43.3	45.0	35.7	33.8	9.7	9.1	10.9	9.8	2.6	2.4	3.7	3.4
1997	44.9	46.4	39.3	35.8	9.4	9.1	9.0	7.5	2.6	2.4	3.7	2.5

— Not available.

NOTE: In 1994, the survey instrument for the Current Population Survey (CPS) was changed and weights were adjusted. See the supplemental note to *Indicator 51* for further discussion. Included in the total but not shown separately are high school completers from other racial–ethnic groups.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Percentage of high school completers enrolled in college, by age and race–ethnicity: October 1972–97



NOTE: In 1994, the survey instrument for the Current Population Survey (CPS) was changed and weights were adjusted. See the supplemental note to *Indicator 51* for further discussion. Included in the total but not shown separately are high school completers from other racial–ethnic groups.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Persistence and attainment of first-year college stopouts

A majority of undergraduates who successfully complete their first year in college earn a postsecondary degree. The outcomes for students who leave in their first year and return to college later (stopouts) are less well known. Tracking the academic path of these stopouts can help identify and understand students who are at risk for leaving.

- In 1989–90, 29 percent of undergraduates left college during their first year or failed to re-enroll the following year. A greater percentage left public 2-year institutions (42 percent) than 4-year colleges and universities (16 percent). About half of those leaving public 2-year institutions and about two-thirds of those leaving 4-year institutions returned to college by 1994 (that is, were stopouts). The rest remained out of college through 1994.
- By 1994, stopouts from private, not-for-profit 4-year institutions who returned to their original institution were more likely than their counterparts from public 4-year institutions to have earned a degree or certificate (63 versus 20 percent) and less likely to not be enrolled in college (22 versus 49 percent; see supplemental table 55-1).
- Within the public 2-year sector, stopouts who transferred to another institution were more likely to earn a degree or certificate by 1994 (48 percent) than were those who returned to the same institution (27 percent). In fact, stopouts who transferred had attained some degree or certificate by 1994 at a rate similar to that of students who did not leave in their first year (48 and 50 percent, respectively; see supplemental table 55-1).

Percentage distribution of 1989–90 beginning postsecondary students by their persistence or departure status in 1989–90, by type of first institution attended

			Left in 1989–90 without certificate		
Type of first institution	Attained certificate	Persisted to 1990–91	Total	Stopped out[1]	Stayed out through 1994
Total[2]	**1.2**	**69.5**	**29.4**	**15.9**	**13.5**
Institution in 1989–90					
Public 2-year	2.1	55.5	42.4	21.5	21.0
All 4-year	0.2	83.9	15.9	10.1	5.8
Public	0.2	82.3	17.5	10.9	6.6
Private, not-for-profit	0.2	87.3	12.5	8.3	4.2

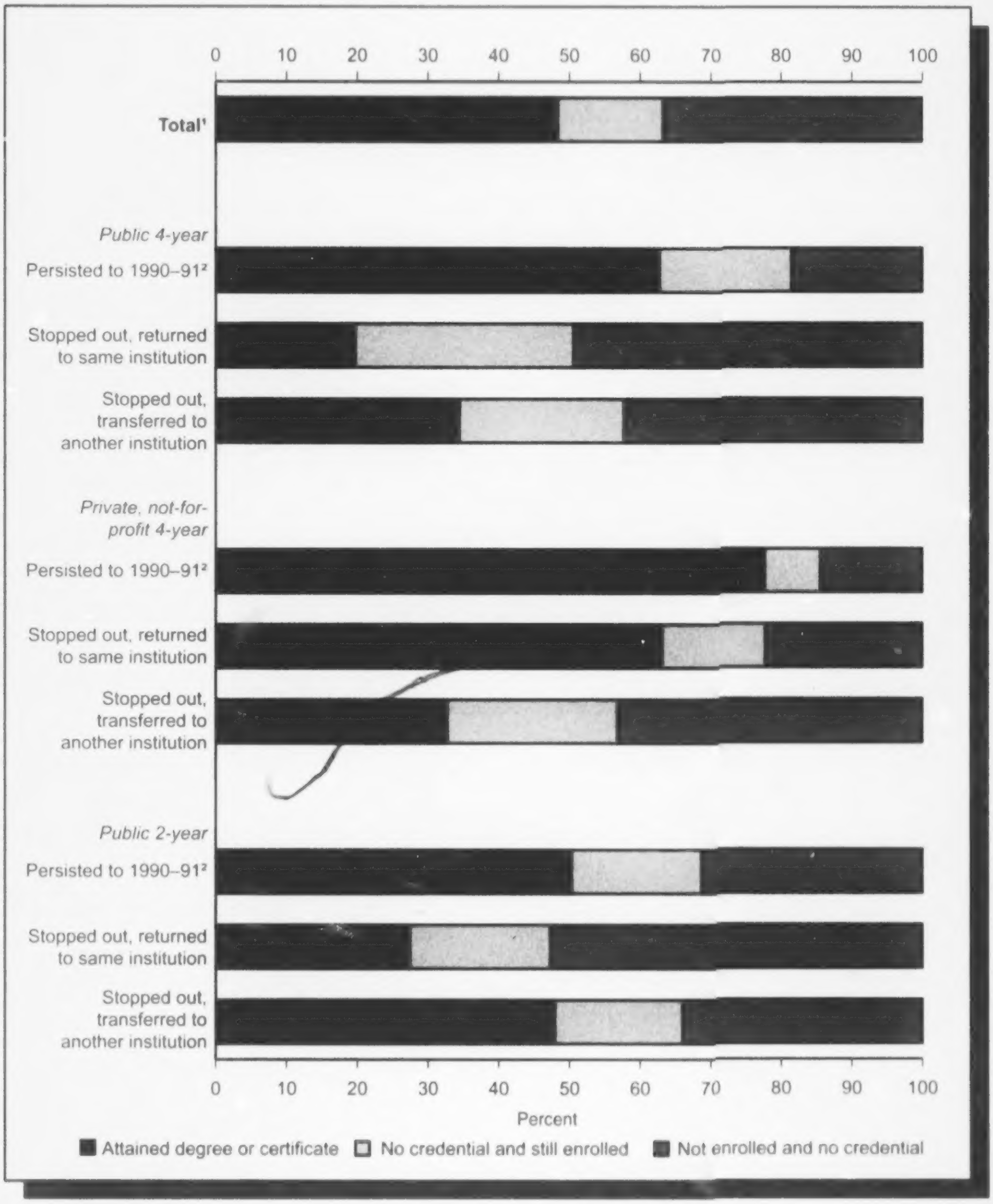
[1] Stopouts returned to college by 1994 but may have left again without earning a degree or certificate.

[2] Does not include students in private, for-profit institutions; public less-than-2-year institutions; or private, not-for-profit less-than-4-year institutions (about 14 percent of beginning students).

NOTE: Details may not add to 100.0 due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1989–90 Beginning Postsecondary Students Longitudinal Study, Second Follow-up (BPS:90/94), Data Analysis System.

Percentage distribution of 1989–90 beginning postsecondary students according to attainment status in 1994, by persistence and departure status



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[1] Does not include students in private, for-profit institutions; public less-than-2-year institutions; or private, not-for-profit less-than-4-year institutions (about 14 percent of beginning students).

[2] Includes a small percentage who attained a certificate in 1989–90.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1989–90 Beginning Postsecondary Students Longitudinal Study, Second Follow-up (BPS:90/94), Data Analysis System.

Persistence and attainment of first-generation students

Enrolling in college after completing high school is an expected next step for many young people, especially those whose parents attended college. For students whose parents never attended college (first-generation students), going to college may signify an attempt to improve their social, economic, and occupational standing. Yet these students can encounter a variety of obstacles in their path toward enrollment and degree attainment.

- Among those who began their postsecondary education in 1989–90, first-generation students were more likely than those whose parents had higher levels of education to be 25 years or older, be married, have dependents, be financially independent of their parents, and start at public 2-year institutions (see supplemental tables 56-1 and 56-2).

- By 1994, about half (55 percent) of 1989–90 first-generation beginning students had earned a degree or were still enrolled in college. However, they were more likely than other students to have not earned a degree or be enrolled in 1994. As parental education level increased, so did the likelihood that students persisted in college.

- First-generation students who initially enrolled in private, not-for-profit 4-year institutions were more likely than those who started in public 4-year institutions to attain a bachelor's degree by 1994. The same was true for students whose parents had higher levels of education.

Percentage distribution of 1989–90 beginning postsecondary students according to persistence and attainment status as of 1994, by first-generation status and control and type of first institution

First-generation status[1]	Persisted			No degree or certificate, not enrolled	Highest degree attained			
	Attained degree or certificate	No degree or certificate, enrolled	Total		No degree or certificate	Certificate	Associate degree	Bachelor's degree
				All institutions[2]				
Total	**50.0**	**13.3**	**63.2**	**36.8**	**50.1**	**12.5**	**11.4**	**26.1**
First generation	44.2	10.7	55.0	45.1	55.3	16.9	11.7	16.0
Parents have some college	50.6	14.5	65.1	34.9	49.8	10.6	11.9	27.7
Parents have bachelor's or advanced degree	58.8	16.9	75.7	24.3	41.2	6.0	11.8	41.0
				Public 4-year				
Total	**54.8**	**18.4**	**73.2**	**26.8**	**45.2**	**3.2**	**4.7**	**47.0**
First generation	46.4	19.8	66.1	33.9	53.6	5.9	5.7	34.7
Parents have some college	53.3	17.4	70.7	29.3	46.7	1.5	5.0	46.8
Parents have bachelor's or advanced degree	62.3	18.3	80.7	19.3	37.7	2.0	3.6	56.7
				Private, not-for-profit 4-year				
Total	**71.9**	**8.6**	**80.5**	**19.5**	**28.1**	**2.3**	**3.0**	**66.6**
First generation	62.9	8.2	71.1	28.9	37.1	2.5	2.8	57.6
Parents have some college	70.6	8.5	79.2	20.9	29.4	3.8	4.4	62.4
Parents have bachelor's or advanced degree	77.9	8.6	86.5	13.5	22.1	1.6	2.5	73.8
				Public 2-year				
Total	**36.7**	**14.7**	**51.4**	**48.6**	**63.3**	**12.9**	**17.5**	**6.3**
First generation	35.4	10.8	46.2	53.8	64.6	14.6	15.1	5.7
Parents have some college	36.8	17.5	54.3	45.7	63.2	10.6	19.3	6.9
Parents have bachelor's or advanced degree	42.2	22.2	64.4	35.6	57.8	9.6	24.5	8.1

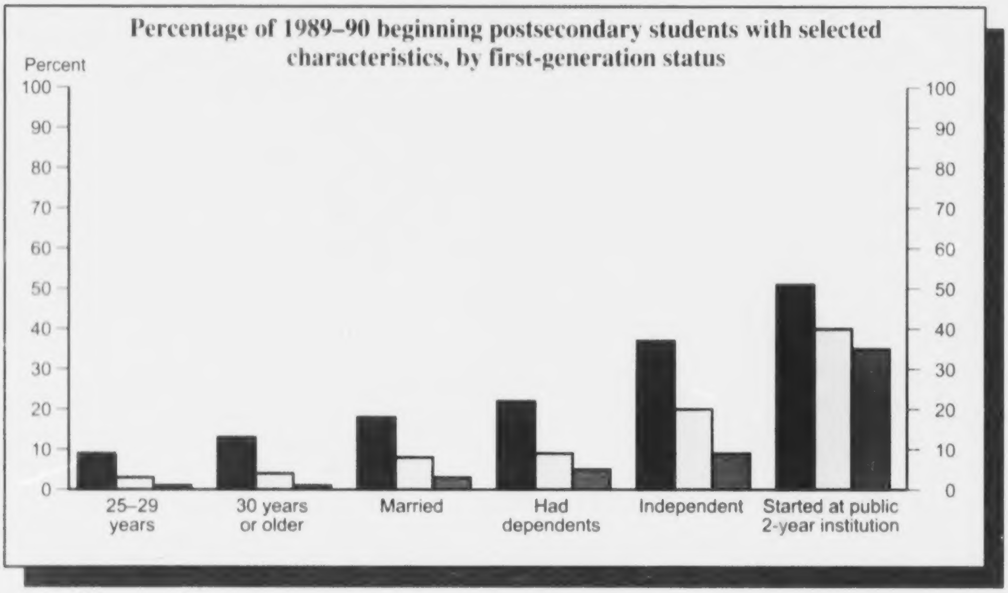
[1] The highest educational attainment of either parent was no college for 43 percent of students, some college for 23 percent of students, and a bachelor's or advanced degree for 34 percent.

[2] Includes students at all types of postsecondary institutions, including types not shown separately.

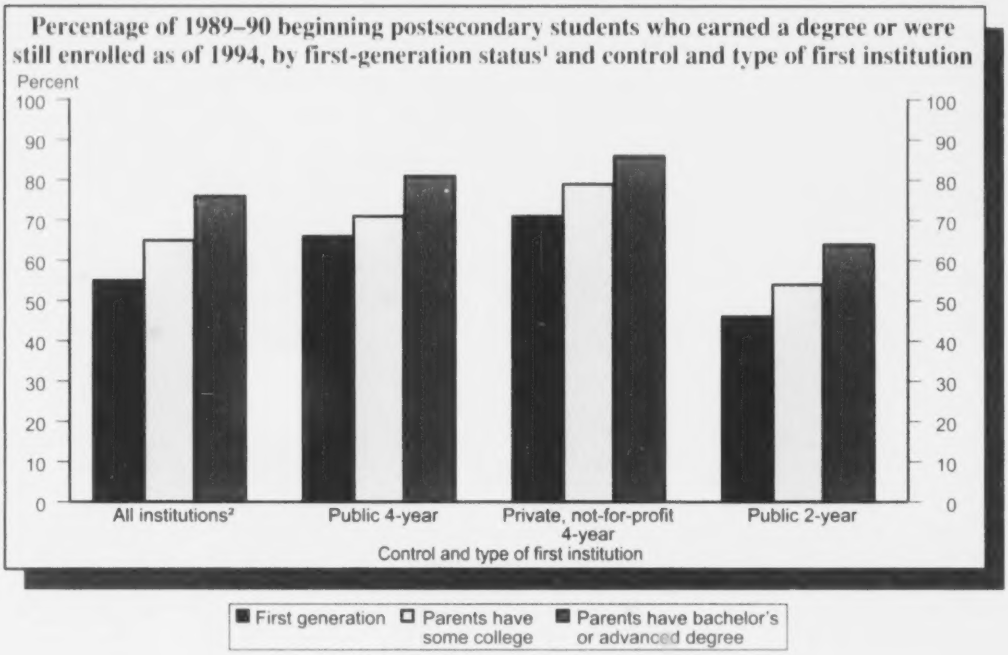
NOTE: Details may not add to 100.0 due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1989–90 Beginning Postsecondary Students Longitudinal Study, Second Follow-up (BPS:90/94), Data Analysis System.

Persistence and attainment of beginning postsecondary students, by first-generation status



Percentage of 1989–90 beginning postsecondary students with selected characteristics, by first-generation status



Percentage of 1989–90 beginning postsecondary students who earned a degree or were still enrolled as of 1994, by first-generation status[1] and control and type of first institution

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[1] The highest educational attainment of either parent was no college for 43 percent of students, some college for 23 percent of students, and a bachelor's or advanced degree for 34 percent.

[2] Includes students at all types of postsecondary institutions, including types not shown separately.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1989–90 Beginning Postsecondary Students Longitudinal Study, Second Follow-up (BPS:90/94), Data Analysis System.

Bachelor's degrees conferred, by field of study and race–ethnicity

Changing opportunities within the job market affect the fields in which students choose to major. In turn, the majors that students choose affect the demand for courses and faculty as well as the supply of new graduates in different fields. Trends in the number and proportion of bachelor's degrees conferred in different fields, as well as the distribution of these degrees across racial–ethnic groups, help not only to identify changing conditions in the supply and demand of the job market but also to provide some insight into the diversity of the Nation's future work force.

- After declining for several years, the number of bachelor's degrees conferred in the humanities and the social and behavioral sciences has grown since the mid-1980s. Combined with business management degrees, these three types of degrees have constituted more than half of all degrees conferred since 1971.

- Following a sharp decline between 1986 and 1992, the number of degrees conferred in computer sciences and engineering leveled off between 1993 and 1996.

- Between 1977 and 1996, increasing proportions of black students earned bachelor's degrees in physical sciences, mathematics, computer sciences and engineering, and business management. These increases led to a narrowing of the black–white disparity in the physical sciences and mathematics and to a widening of the black–white disparity favoring blacks in business management since the late 1970s (see supplemental table 57-1).

- After remaining relatively unchanged between 1977 and 1991, the Hispanic–white disparity in physical sciences widened so that in 1996, the Hispanic field concentration ratio was 0.56. In contrast, the proportions of Hispanics, relative to whites, who earned bachelor's degrees in computer sciences and engineering increased between 1977 and 1992 and then decreased to a level of near parity between Hispanics and whites (see supplemental table 57-1).

Index of the number of bachelor's degrees conferred and percentage distribution of total bachelor's degrees conferred, by field of study: Academic years ending 1971–96

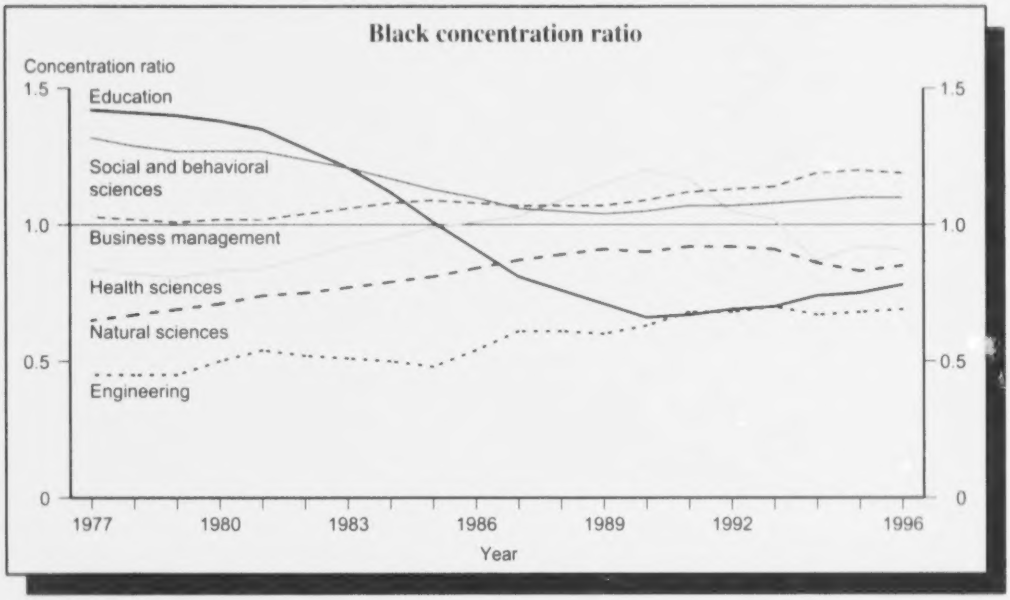
Field of study	1971	1976	1981	1986	1991	1992	1993	1994	1995	1996
					Index of the number of degrees (1981=100)					
All fields	**89.8**	**99.0**	**100.0**	**105.6**	**117.0**	**121.5**	**124.6**	**125.0**	**124.1**	**124.6**
Humanities	107.1	112.4	100.0	99.0	128.6	138.7	145.1	145.1	143.5	144.0
Social/behavioral sciences	136.7	124.8	100.0	95.0	129.8	139.5	143.0	143.3	141.4	141.1
Natural sciences	104.4	117.1	100.0	98.5	90.6	95.0	101.0	107.1	113.1	119.3
Computer and information sciences	15.8	37.4	100.0	277.0	165.9	162.4	160.0	160.0	161.4	159.4
Engineering	70.9	60.7	100.0	120.4	97.2	96.7	97.9	98.3	98.5	98.1
Engineering technologies	44.0	67.8	100.0	165.9	146.2	139.5	137.3	136.6	135.0	130.8
Education	163.1	142.9	100.0	80.6	102.5	99.9	99.7	99.6	98.2	97.6
Business management	57.7	71.4	100.0	119.3	125.3	129.0	129.1	124.0	117.8	114.1
Health sciences	39.6	84.8	100.0	101.2	92.8	97.0	105.4	116.9	125.5	132.0
Other technical/professional	43.2	86.6	100.0	*97.4	109.2	119.4	124.7	127.6	128.6	131.8
					Percentage distribution of total degrees					
All fields	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Humanities	17.1	16.3	14.3	13.4	15.7	16.3	16.7	16.6	16.6	16.6
Social/behavioral sciences	23.0	19.1	15.1	13.6	16.8	17.4	17.4	17.4	17.3	17.2
Natural sciences	9.8	9.9	8.4	7.8	6.5	6.6	6.8	7.2	7.7	8.1
Computer and information sciences	0.3	0.6	1.6	4.2	2.3	2.2	2.1	2.1	2.1	2.1
Engineering	5.3	4.1	6.8	7.7	5.6	5.4	5.3	5.3	5.4	5.3
Engineering technologies	0.6	0.9	1.3	2.0	1.6	1.4	1.4	1.4	1.4	1.3
Education	21.0	16.7	11.6	8.8	10.1	9.5	9.3	9.2	9.1	9.1
Business management	13.7	15.3	21.3	24.0	22.8	22.6	22.0	21.1	20.2	19.5
Health sciences	3.0	*5.8	6.8	6.5	5.4	5.4	5.8	6.4	6.9	7.2
Other technical/professional	6.2	11.2	12.8	11.8	12.0	12.6	12.9	13.1	13.3	13.6

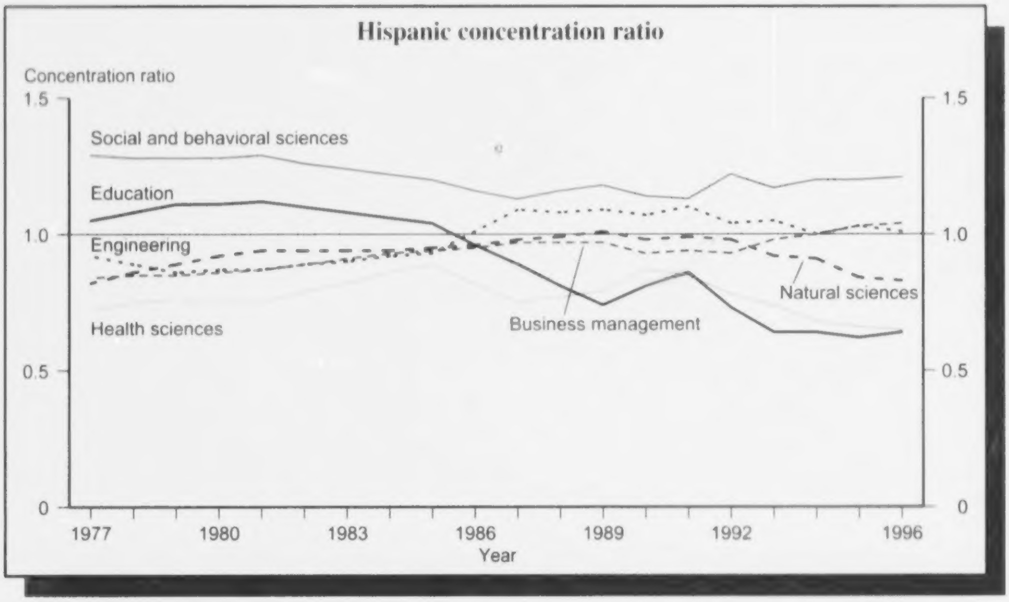
* Revised from previously published figures.

NOTE: The index of the number of bachelor's degrees conferred is calculated as the number of degrees conferred in a given field of study divided by the number of degrees conferred in the same field in 1981. A value greater than 100 indicates that more bachelor's degrees were conferred in that field of study in that year than in 1981, whereas a value less than 100 indicates that fewer bachelor's degrees were conferred in that field in that year than in 1981. Details may not add to totals due to rounding. See the supplemental note to this indicator for a description of the fields of study.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics*, various years (based on IPEDS "Completions" surveys).

Minority field concentration ratio* at the bachelor's degree level, by selected fields of study: Academic years ending 1977–96





* The minority field concentration ratio is calculated as the percentage of a minority group earning bachelor's degrees who majored in a selected field of study divided by the percentage of whites earning bachelor's degrees who majored in the same field. For example, the 1996 black to white concentration ratio for education = 0.78/10.1 = 0.78. A value greater than 1 indicates that minority graduates are more likely to major in that field than whites, whereas a value less than 1 indicates that minority graduates are less likely to major in that field than whites.

NOTE: See the supplemental note to this indicator for a description of fields of study.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics*, various years (based on IPEDS "Completions" surveys).

Graduate field of study, by sex and race–ethnicity

Changing opportunities within the job market affect the fields in which male and female graduates and graduates from different racial–ethnic groups choose to earn a graduate degree. The female field concentration ratio shows how much the fields studied by females differ from those studied by males. The minority field concentration ratio shows how much the fields studied by various minority groups differ from those studied by whites. Changes in the ratio show whether differences in field preferences of males and females and of minorities and whites are narrowing or widening and may also indicate changes in the occupations and earning potential of females and minorities.

- In 1996, a substantially higher proportion of females than males earned master's degrees in education and health professions. In contrast, a higher proportion of males than females earned master's degrees in the natural sciences, computer sciences/engineering, and business management.

- From 1971 to 1983, a higher proportion of males than females earned master's degrees in the social and behavioral sciences. In contrast, from 1984 to 1996, a higher proportion of females than males earned master's degrees in this field. At the doctor's level, females have been consistently more likely than males to earn a degree in the social and behavioral sciences since 1971 (see supplemental tables 58-1 and 58-3).

- Between 1979 and 1996, the proportion of black and Hispanic master's degree recipients who earned degrees in the natural sciences and computer sciences/engineering increased. In 1996, black recipients were 44 and 31 percent less likely than whites to earn degrees in the natural sciences and computer sciences/engineering, respectively; however, Hispanics were 28 and 2 percent less likely than whites to earn degrees in these fields (see supplemental table 58-2).

Female field concentration ratio[1] and dissimilarity index[2] of graduate degrees conferred, by field of study and degree level: Academic years ending 1971–96

Field of study and degree level	1971	1974	1977	1980	1983	1986	1989	1992	1993	1994	1995	1996
Master's degrees												
Humanities	1.58	1.34	1.17	1.08	1.06	1.12	1.07	1.08	1.08	1.09	1.07	1.03
Social/behavioral sciences	0.69	0.67	0.76	0.88	0.99	1.08	1.07	1.05	1.08	1.10	1.12	1.12
Natural sciences	0.48	0.43	0.44	0.43	0.48	0.53	0.56	0.54	0.55	0.55	0.55	0.57
Computer sciences and engineering	0.03	0.05	0.07	0.11	0.15	0.20	0.19	0.19	0.19	0.19	0.19	0.19
Education	1.92	1.99	2.18	2.42	2.64	2.66	2.84	2.85	2.81	2.75	2.65	2.53
Business management	0.06	0.09	0.19	0.30	0.41	0.45	0.47	0.46	0.47	0.48	0.48	0.47
Health professions	1.85	2.00	2.37	2.66	3.01	3.16	3.30	3.32	3.31	3.19	2.96	2.96
Other technical/professional[3]	1.56	1.24	1.04	1.10	1.22	1.27	1.30	1.34	1.35	1.33	1.34	1.28
Dissimilarity index[2]	37.90	35.95	35.13	35.34	34.89	34.76	35.32	35.59	35.83	35.05	34.52	33.59
Doctor's degrees												
Humanities	1.89	1.71	1.41	1.10	1.09	1.08	1.05	1.13	1.13	1.09	1.10	1.16
Social/behavioral sciences	1.29	1.28	1.29	1.30	1.38	1.42	1.48	1.51	1.57	1.54	1.55	1.62
Natural sciences	0.67	0.63	0.56	0.56	0.59	0.58	0.64	0.69	0.70	0.68	0.69	0.69
Computer sciences and engineering	0.04	0.08	0.11	0.11	0.11	0.15	0.18	0.19	0.18	0.21	0.22	0.22
Education	1.60	1.52	1.61	1.86	1.99	2.10	2.33	2.48	2.36	2.48	2.51	2.48
Business management	0.17	0.24	0.21	0.41	0.41	0.52	0.65	0.51	0.63	0.63	0.57	0.61
Health professions	1.19	1.24	1.46	1.91	1.57	1.94	2.36	2.33	2.19	2.25	2.13	1.97
Other technical/professional[3]	0.76	0.70	0.88	0.87	0.83	1.00	0.98	1.01	1.09	1.07	1.05	1.09
Dissimilarity index[2]	28.31	25.99	24.08	24.23	25.70	26.41	27.71	28.89	29.20	28.78	28.07	29.14

[1] The female field concentration ratio is calculated as the percentage of females earning degrees who majored in a specific field divided by the percentage of males earning degrees who majored in the same field. For example, the 1996 female to male concentration ratio for a master's degree in education = 35.72/14.11 = 2.53. A value greater than 1 indicates that females are more likely to earn a graduate degree in that field than males, whereas a value less than 1 indicates that females are less likely to earn a graduate degree in that field than males. Includes degrees conferred to U.S. and non-U.S. citizens.

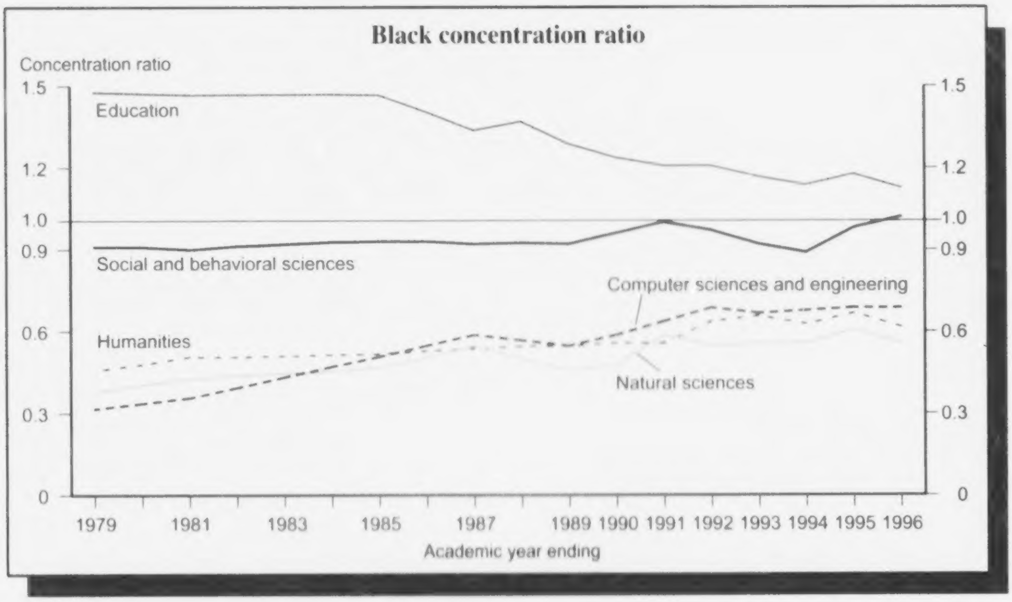
[2] The dissimilarity index represents the percentage distribution of female students who would need to switch fields of study to match the percentage distribution of male students across fields of study. It is calculated as the sum of the absolute difference between the percentages of male and female students majoring in each field divided by 2.

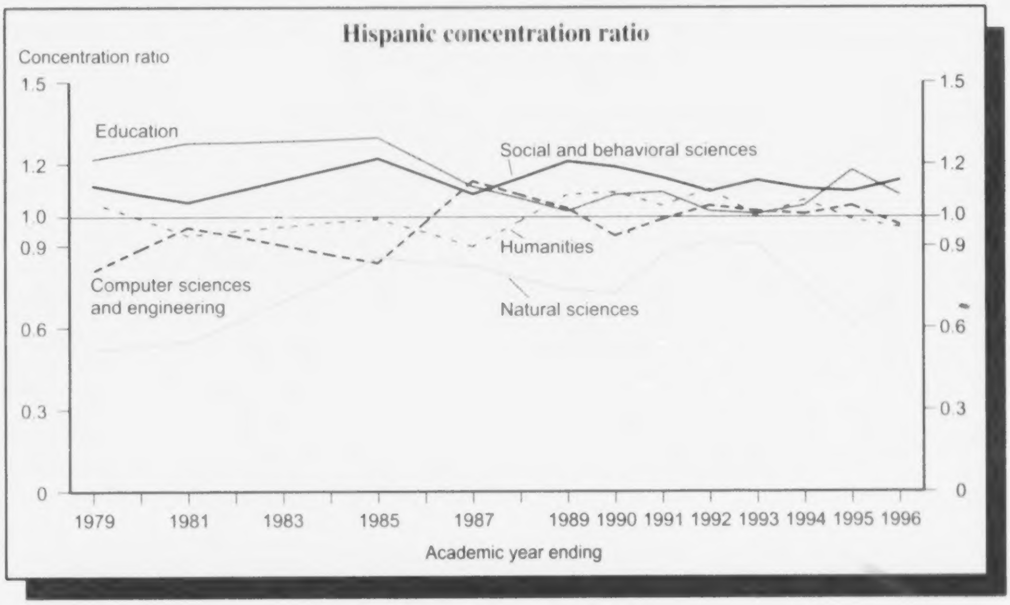
[3] Principally composed of public administration at the master's degree level and agriculture and natural resources at the doctor's degree level.

NOTE: Data for 1988 through 1995 are revised from previously published figures. See the supplemental note to *Indicator 57* for a description of the fields of study.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics*, various years (based on IPEDS "Completions" surveys).

Minority field concentration ratio* of master's degrees conferred: Academic years ending 1979–96





* The minority field concentration ratio is calculated as the percentage of a minority group earning master's degrees who majored in a selected field of study divided by the percentage of whites earning master's degrees who majored in the same field. For example, the 1996 black-to-white concentration ratio for education = 33.2/29.3 = 1.13. A value greater than 1 indicates that minority graduates are more likely to major in that field than whites, whereas a value less than 1 indicates that minority graduates are less likely to major in that field than whites.

NOTE: See the supplemental note to *Indicator 57* for a description of the fields of study.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics*, various years (based on IPEDS "Completions" surveys).

Educational attainment

Changes in educational attainment over time indicate fluctuations in the demand for skills and knowledge in the work force as well as societal changes. An increase in the overall level of educational attainment can reflect the increasing emphasis society places on completing high school and college. Completing high school or college is an important educational accomplishment that yields many benefits, such as better job opportunities and higher earnings.

- The educational attainment of 25- to 29-year-olds increased between 1971 and 1998. The percentage with a high school diploma or equivalency certificate rose from 78 to 88 percent; the percentage of high school completers with some college rose from 44 to 66 percent; and the percentage of high school completers with a bachelor's degree or higher rose from 22 to 31 percent.

- The educational attainment of blacks ages 25–29 increased across all education levels between 1971 and 1998. During this period, the rates of high school completion became more similar for blacks and whites. In 1971, blacks ages 25–29 completed high school at a rate that was 72 percent of the rate of whites, while in 1998 the high school completion rate for blacks was 94 percent of the rate of whites. In contrast, the gaps in attainment between white and black high school completers with some college remained about the same, and the gap for those with a bachelor's degree or higher widened.

- The educational attainment of Hispanics ages 25–29 increased across all levels between 1971 and 1998. However, despite these increases, the gaps in attainment between Hispanics and whites remained similar at every attainment level during this period.

- In 1971, females ages 25–29 had lower rates of attainment at every education level than their male peers. However, between 1971 and 1998, the educational attainment of females increased at a faster rate than that of males, and by 1998, the attainment rate of females surpassed that of their male peers (see supplemental tables 59-1, 59-2, and 59-3).

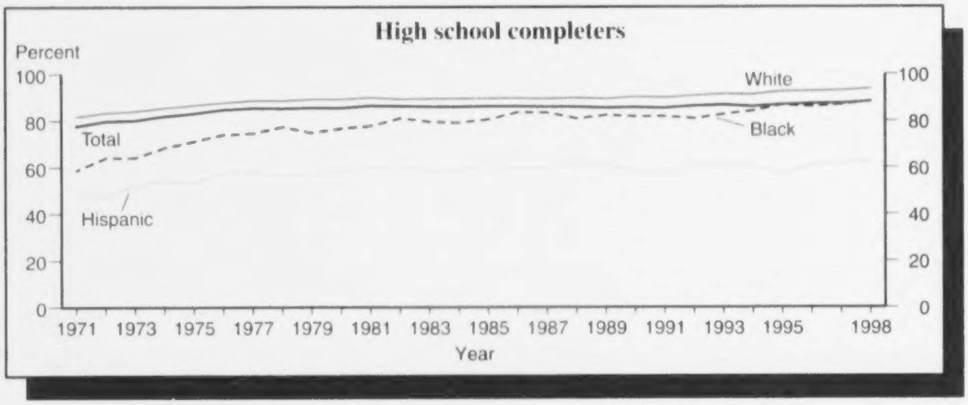
Percentage of 25- to 29-year-olds who completed high school and percentage of high school completers with some college or a bachelor's degree or higher, by race–ethnicity: March 1971–98

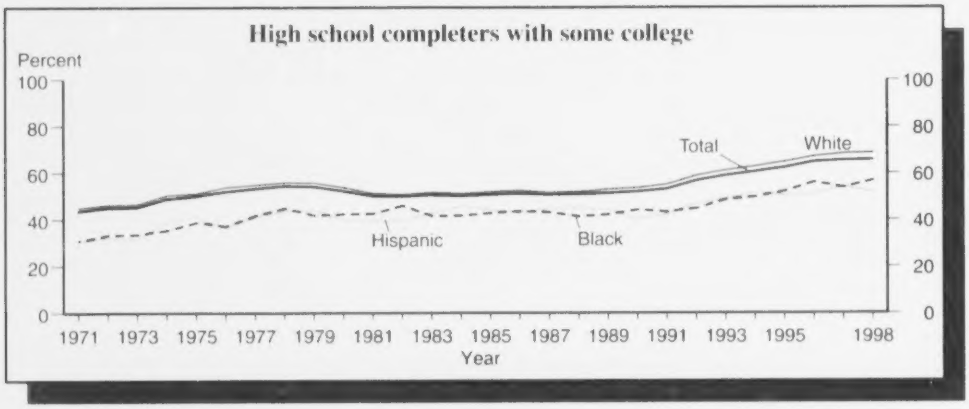
					High school completers with:							
	Diploma or equivalency certificate				Some college				Bachelor's degree or higher			
March	Total	White	Black	Hispanic	Total	White	Black	Hispanic	Total	White	Black	Hispanic
1971	77.7	81.7	58.8	48.3	43.6	44.9	30.9	30.6	22.0	23.1	11.5	10.5
1973	80.2	84.0	64.1	52.3	45.3	46.6	33.5	31.6	23.6	24.8	12.7	10.8
1975	83.1	86.6	71.1	53.1	50.1	51.2	38.7	41.1	26.3	27.5	14.7	16.6
1977	85.4	88.6	74.5	58.0	53.2	54.8	41.7	41.1	28.1	29.8	16.9	11.5
1979	85.6	89.2	74.7	57.1	54.1	55.7	41.7	44.0	27.0	28.6	16.6	12.9
1981	86.3	89.8	77.6	59.8	50.1	51.2	42.5	39.6	24.7	26.3	14.9	12.5
1983	86.0	89.3	79.5	58.4	50.6	51.6	41.6	42.9	26.2	27.4	16.2	17.8
1985	86.2	89.5	80.5	61.0	50.8	51.8	42.7	44.2	25.7	27.3	14.4	18.2
1987	86.0	89.4	83.5	59.8	50.7	51.4	43.0	44.6	25.6	27.6	13.8	14.5
1989	85.5	89.3	82.3	61.0	51.3	52.8	42.1	44.3	27.3	29.5	15.4	16.5
1991	85.4	89.8	81.8	56.7	53.1	54.9	43.2	42.2	27.2	29.7	13.4	16.3
1992	86.3	90.6	80.9	60.9	56.7	58.8	44.7	46.8	27.3	30.0	13.7	15.6
1993	86.7	91.2	82.7	60.9	58.9	61.0	48.4	48.8	27.3	29.8	16.1	13.6
1994	86.1	91.1	84.1	60.3	60.5	62.7	49.6	51.5	27.0	29.7	16.2	13.3
1995	86.9	92.5	86.8	57.2	62.2	64.6	52.0	50.3	28.4	31.2	17.8	15.5
1996	87.3	92.6	86.0	61.1	64.7	67.0	55.9	50.9	31.1	34.1	17.0	16.4
1997	87.4	92.9	86.9	61.8	65.4	68.2	53.7	53.9	31.8	35.2	16.4	17.8
1998	88.1	93.6	88.2	62.8	65.6	68.5	56.6	51.7	31.0	34.5	17.9	16.5

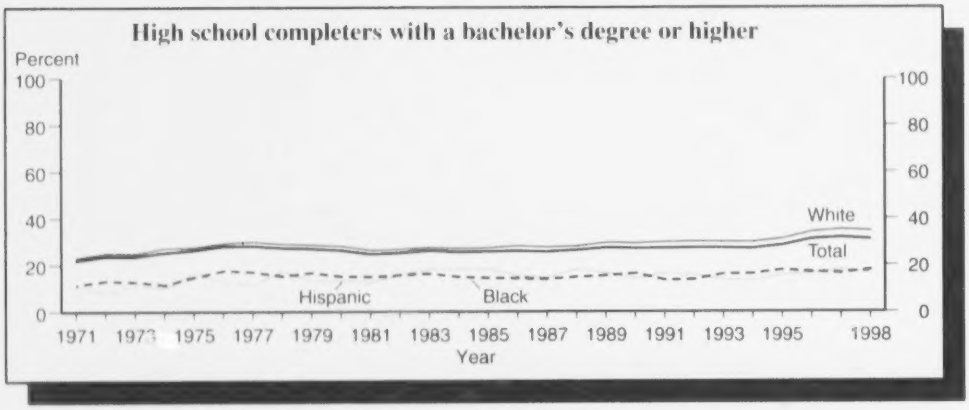
NOTE: The Current Population Survey (CPS) questions used to obtain educational attainment were changed in 1992. See the supplemental note to this indicator for further discussion. In 1994, the survey instrument for the CPS was changed and weights were adjusted. See the supplemental note to *Indicator 51* for further discussion. Included in totals but not shown separately are other racial–ethnic groups.

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

Percentage of 25- to 29-year-olds who completed high school and percentage of high school completers with some college or a bachelor's degree or higher, by race–ethnicity: March 1971–98







NOTE: The Current Population Survey (CPS) questions used to obtain educational attainment were changed in 1992. See the supplemental note to this indicator for further discussion. In 1994, the survey instrument for the CPS was changed and weights were adjusted. See the supplemental note to *Indicator 51* for further discussion. Included in totals but not shown separately are other racial–ethnic groups.

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

International comparisons of educational attainment, by age

The percentage of the population completing secondary and higher education in different countries may be used to compare the skill level of the U.S. work force with that of its economic competitors. In addition, contrasting the educational attainment of the general population with the attainment of younger age cohorts provides a means of comparing progress in the rates of high school and college completion.

- In the United States, the United Kingdom, Germany, and Canada, at least 80 percent of adults ages 25–34 had completed secondary education in 1996. In comparison, only in the United States and Germany had 80 percent or more of adults ages 45–54 completed secondary education. The similarities in secondary educational attainment rates for those ages 25–34 indicate that other countries have gradually caught up to or surpassed the United States in terms of the percentage of their populations completing secondary education (see supplemental table 60-1).

- The United States still ranks first among the large, industrialized countries in terms of higher educational attainment. For both the younger and older generations, adults in the United States had higher rates of higher educational attainment than adults in other countries in 1996. The United States is still likely to retain a lead in higher education over other countries in the future.

- However, while the percentages of the younger generation completing higher education were generally higher than those for the older generation in most of the countries, this was not true for the United States. In the United States, those ages 45–54 had higher educational attainment rates that were slightly greater than the rates of those ages 25–34, which may be due to a more flexible education system in which adults may enroll in and complete higher education at any age.

- About 24 percent of female adults ages 25–64 in the United States completed higher education in 1996 (see supplemental table 60-1). Females ages 25–34 in the United States were also more likely to complete higher education than their female and male peers in other large, industrialized countries (with the exception of males ages 25–34 in Japan).

- Males ages 25–34 in Japan were much more likely to complete higher education than males of the same age in the other large, industrialized countries. Males of the same age in the United States ranked second.

Percentage of the population in large, industrialized countries who completed secondary and higher education, by age, sex, and country: 1996

	25–34 years old						25–64 years old	
	Total		Male		Female		Total	
Country	Secondary education[1]	Higher education	Secondary education[1]	Higher education	Secondary education[1]	Higher education	Secondary education[1]	Higher education
Canada	84.9	20.1	82.9	19.4	86.9	20.8	76.4	17.3
France[2]	74.3	12.4	73.6	11.7	74.9	12.9	60.2	9.7
Germany	86.4	12.9	88.3	14.1	84.4	11.6	81.5	13.1
Italy	52.1	8.3	50.0	8.0	54.3	8.7	38.2	8.1
Japan[3]	90.6	22.9	89.3	34.2	91.8	11.5	69.7	13.3
United Kingdom	86.6	15.2	87.5	16.5	85.6	13.8	76.3	12.8
United States	86.9	26.5	85.9	25.9	87.9	27.1	85.7	25.8

[1] Includes individuals who have completed at least secondary education.

[2] The allocation for individual education level for France was revised in 1996. The result is a reduction in the number of people with upper secondary level qualification and an increase in the number with lower secondary level qualification.

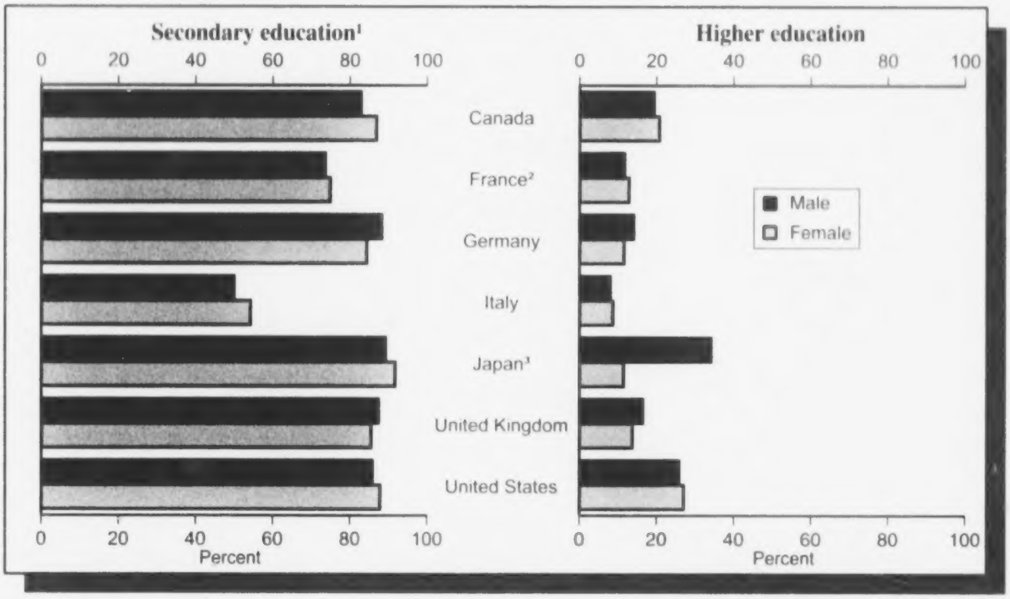
[3] Data are for 1989.

NOTE: In the United States, completing secondary education is defined as graduating from high school or earning a GED; completing higher education is defined as earning a bachelor's degree or higher. Individuals for whom educational attainment is unknown are excluded from the analysis.

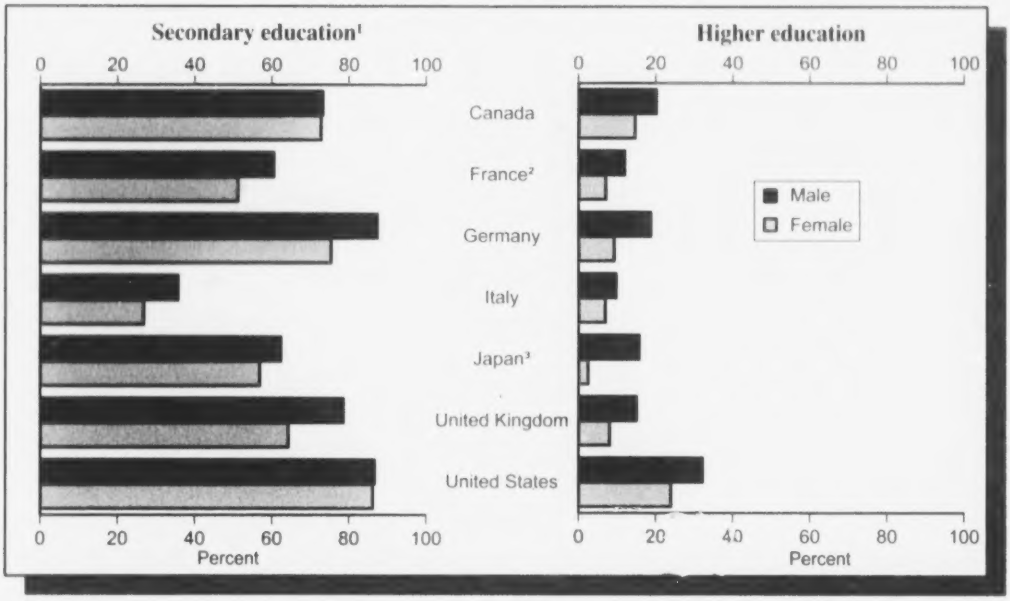
SOURCE: Organisation for Economic Co-operation and Development, INES Project, International Indicators Project.

Percentage of the population in large, industrialized countries who have completed secondary and higher education, by age, sex, and country: 1996

25–34 years old



45–54 years old



[1] Includes individuals who have completed at least secondary education.

[2] The allocation for individual education level for France was revised in 1996. The result is a reduction in the number of people with upper secondary level qualification and an increase in the number with lower secondary level qualification.

[3] Data are for 1989.

NOTE: In the United States, completing secondary education is defined as graduating from high school or earning a GED; completing higher education is defined as earning a bachelor's degree or higher. Individuals for whom educational attainment is unknown are excluded from the analysis.

SOURCE: Organisation for Economic Co-operation and Development, INES Project, International Indicators Project.

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Supplemental Tables and Notes

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Listed below are all of the supplemental tables and notes prepared for The Condition of Education 1999. *Due to space limitations, all of the tables and notes listed are not included in the printed volume; only those shown in bold are included here. To receive the second volume,* The Condition of Education 1999 Supplemental and Standard Error Tables, *which includes the complete set of tables (and any associated standard error tables), contact EDPUBS at (877) 433-7827 or to view the electronic version of* The Condition of Education 1999, *go to the NCES Internet site http://nces.ed.gov/pubs99/condition99/index.html*

Table 1-1 **Science anchor levels**

Table 1-2 Percentile distribution of science performance scale scores, by age and race–ethnicity: 1977–96

Table 2-1 **Mathematics achievement levels**

Table 2-2 **Percentage distribution of students, by mathematics achievement level and grade: 1990, 1992, and 1996**

Table 2-3 **Average mathematics performance scores of public school 4th- and 8th-grade students, and change in scores from 1992 and from 1990, by grade and jurisdiction: 1996**

Table 3-1 **Average mathematics and science performance scores of 4th-grade students, by sex and country: 1995**

Table 3-2 **Average mathematics and science performance scores of 8th-grade students, by sex and country: 1995**

Note **Data collection and sampling guidelines for the TIMSS**

Table 4-1 **Reading anchor levels**

Table 5-1 **Reading achievement levels**

Table 5-2 **Percentage of students, by reading achievement level and grade: 1992, 1994, and 1998**

Note **Overview of NAEP assessments**

Table 6-1 **Writing anchor levels**

Table 6-2 **Percentage of students scoring at or above each of five anchor levels of writing performance: 1984–96**

Table 6-3 **Percentile distribution of writing performance scale scores, by grade and race–ethnicity: 1984–96**

Table 7-1 **Average music, theatre, and visual arts performance scores, by various characteristics of arts education: 1997**

Note **Information on NAEP Arts Education Assessment**

Table 8-1 **Percentage of adults ages 16–65 at each level of education who scored at level 3 or above in document literacy, by country: 1994**

Note **Information on the International Adult Literacy Survey (IALS)**

Table 9-1 **Political knowledge of students in grades 9–12, by selected student characteristics: 1996**

Table 9-2 **Attention to politics, participation skills, political efficacy, and tolerance of diversity of students in grades 9–12, by selected student characteristics: 1996**

Table 10-1 **Employment rates for recent high school completers not enrolled in college and for recent high school dropouts, by sex: October 1960–97**

Table 10-2 Employment rates for recent high school completers not enrolled in college and for recent high school dropouts, by family income: October 1972–97

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Table 1-1 Science anchor levels

Level 150:	**Knows everyday science facts** Students at this level know some general scientific facts of the type that could be learned from everyday experiences. They can read simple graphs, match the distinguishing characteristics of animals, and predict the operation of familiar apparatus that work according to mechanical principles.
Level 200:	**Understands simple scientific principles** Students at this level are developing some understanding of simple scientific principles, particularly in the life sciences. For example, they exhibit some rudimentary knowledge of the structure and function of plants and animals.
Level 250:	**Applies general scientific information** Students at this level can interpret data from simple tables and make inferences about the outcomes of experimental procedures. They exhibit knowledge and understanding of the life sciences, including a familiarity with some aspects of animal behavior and of ecological relationships. These students also demonstrate some knowledge of basic information from the physical sciences.
Level 300:	**Analyzes scientific procedures and data** Students at this level can evaluate the appropriateness of the design of an experiment. They have more detailed scientific knowledge and the skill to apply their knowledge in interpreting information from text and graphs. These students also exhibit a growing understanding of principles from the physical sciences.
Level 350:	**Integrates specialized scientific information** Students at this level can infer relationships and draw conclusions using detailed scientific knowledge from the physical sciences, particularly chemistry. They also can apply basic principles of genetics and interpret the societal implications of research in this field.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *NAEP 1996 Trends in Academic Progress*, revised 1998.

Table 2-1 Mathematics achievement levels

Basic:	**Grade 4 (scoring at or above 214)** Fourth-grade students performing at the basic level should show some evidence of understanding the mathematical concepts and procedures in the five NAEP content strands.
	Grade 8 (scoring at or above 262) Eighth-grade students performing at the basic level should exhibit evidence of conceptual and procedural understanding in the five NAEP content strands. This level of performance signifies an understanding of arithmetic operations—including estimation—on whole numbers, decimals, fractions, and percents.
	Grade 12 (scoring at or above 288) Twelfth-grade students performing at the basic level should demonstrate procedural and conceptual knowledge in solving problems in the five NAEP content strands.
Proficient:	**Grade 4 (scoring at or above 249)** Fourth-grade students performing at the proficient level should consistently apply integrated procedural knowledge and conceptual understanding to problem solving in the five NAEP content strands.
	Grade 8 (scoring at or above 299) Eighth-grade students performing at the proficient level should apply mathematical concepts and procedures consistently to complex problems in the five NAEP content strands.
	Grade 12 (scoring at or above 336) Twelfth-grade students performing at the proficient level should consistently integrate mathematical concepts and procedures with the solutions of more complex problems in the five NAEP content strands.
Advanced:	**Grade 4 (scoring at or above 282)** Fourth-grade students performing at the advanced level should apply integrated procedural knowledge and conceptual understanding to complex and nonroutine real-world problem solving in the five NAEP content strands.
	Grade 8 (scoring at or above 333) Eighth-grade students performing at the advanced level should be able to reach beyond the recognition, identification, and application of mathematical rules in order to generalize and synthesize concepts and principles in the five NAEP content strands.
	Grade 12 (scoring at or above 367) Twelfth-grade students performing at the advanced level should consistently demonstrate the integration of procedural and conceptual knowledge and the synthesis of ideas in the five NAEP content strands.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *NAEP 1996 Mathematics Report Card for the Nation and the States: Findings from the National Assessment of Educational Progress*, 1997.

Table 2-2 Percentage distribution of students, by mathematics achievement level and grade: 1990, 1992, and 1996

	Grade 4			Grade 8			Grade 12		
Achievement level	1990	1992	1996	1990	1992	1996	1990	1992	1996
At or above basic	50	59	64	52	58	62	58	64	69
Below basic	50	41	36	48	42	38	42	36	31

NOTE: "At or above basic" includes those scoring at the basic, proficient, and advanced levels. See supplemental table 2-1 for an explanation of the basic, proficient, and advanced levels of mathematics achievement. Details may not add to 100 due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *NAEP 1996 Mathematics Report Card for the Nation and the States: Findings from the National Assessment of Educational Progress*, 1997.

Table 2-3 Average mathematics performance scores of public school 4th- and 8th-grade students, and change in scores from 1992 and from 1990, by grade and jurisdiction: 1996

	Grade 4		Grade 8		
Jurisdiction	Average 1996 performance score	Change from 1992 average score	Average 1996 performance score	Change from 1992 average score	Change from 1990 average score
National average	**222**	**[2]4**	**271**	**5**	**8**
Alabama	212	3	257	4	4
Alaska[1]	224	—	278	—	—
Arizona[1]	218	2	268	3	[3]8
Arkansas[1]	216	[2]6	262	[2]5	[3]5
California	209	1	263	2	[3]6
Colorado	226	[2]5	276	3	[3]8
Connecticut	232	[2]5	280	[2]6	[3]10
Delaware	215	[2]-3	267	[2]4	[3]6
District of Columbia	187	[2]-5	233	2	1
Florida	216	2	264	4	[3]8
Georgia	215	0	262	3	4
Hawaii	215	1	262	[2]5	[3]11
Indiana	229	[2]8	276	[2]5	[3]8
Iowa[1]	229	-1	284	1	[3]6
Kentucky	220	[2]5	267	[2]4	[3]9
Louisiana	209	[2]5	252	2	[3]6
Maine	232	1	284	[2]5	—
Maryland[1]	221	3	270	5	[3]9
Massachusetts	229	2	278	5	—
Michigan[1]	226	[2]6	277	[2]10	[3]12
Minnesota	232	[2]4	284	2	[3]9
Mississippi	208	[2]7	250	4	—
Missouri	225	3	273	2	—
Montana[1]	228	—	283	—	3
Nebraska	228	2	283	[2]5	[3]7
Nevada[1]	218	—	—	—	—
New Jersey[1]	227	0	—	—	—
New Mexico	214	1	262	2	[3]6
New York[1]	223	[2]4	270	4	[3]9
North Carolina	224	[2]11	268	[2]9	[3]17
North Dakota	231	2	284	1	3
Oregon	223	—	276	—	[3]5
Pennsylvania[1]	226	2	—	—	—
Rhode Island	220	[2]5	269	[2]3	[3]9
South Carolina[1]	213	1	261	0	—
Tennessee	219	[2]8	263	4	—
Texas	229	[2]11	270	[2]6	[3]12
Utah	227	2	277	2	—
Vermont[1]	225	—	279	—	—
Virginia	223	2	270	2	[3]5
Washington	225	—	276	—	—
West Virginia	223	[2]8	265	[2]6	[3]9
Wisconsin[1]	231	3	283	5	[3]8
Wyoming	223	-2	275	0	[3]3

— State did not participate in the assessment for one or more years.

[1] State did not satisfy one or more of the guidelines for school participation rates in 1996 in grade 4 and/or grade 8.

[2] Change between 1992 and 1996 is statistically significant.

[3] Change between 1990 and 1996 is statistically significant.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *NAEP 1996 Mathematics Report Card for the Nation and the States: Findings from the National Assessment of Educational Progress*, 1997.

Table 3-1 Average mathematics and science performance scores of 4th-grade students,[1] by sex and country: 1995

Country	Mathematics			Science		
	Overall	Male	Female	Overall	Male	Female
International average[2]	**529**	**535**	**533**	**524**	**534**	**525**
Singapore	625	620	630	547	549	545
Korea	611	618	603	597	604	590
Japan	597	601	593	574	580	567
Hong Kong	587	586	587	533	540	526
Netherlands[3]	577	585	569	557	570	544
Czech Republic	567	568	566	557	565	548
Austria[3]	559	563	555	565	572	556
Slovenia[3]	552	551	554	546	548	544
Ireland	550	548	551	539	543	536
Hungary[3]	548	552	546	532	539	525
Australia[2,3]	547	548	546	563	569	556
United States	545	545	544	565	571	560
Canada	532	534	531	549	553	545
Israel[3]	531	537	528	505	512	501
Latvia (Latvian-speaking schools)[3]	525	521	530	512	512	513
Scotland	520	520	520	536	538	533
England[3]	513	515	510	551	555	548
Norway	502	504	499	530	534	526
Cyprus	502	506	499	475	480	471
New Zealand	499	494	504	531	527	535
Greece	492	491	493	497	501	494
Thailand[3]	490	485	496	473	471	474
Portugal	475	478	473	480	481	478
Iceland	474	474	473	505	514	496
Iran, Islamic Republic	429	433	424	416	421	412
Kuwait[3]	400	—	—	401	—	—

— Not available.

[1] Fourth grade in most nations.

[2] The average scores for the international average and Australia (grade 4) differ slightly from those published in *Mathematics Achievement in the Primary School Years*, 1997 and *Science Achievement in the Primary School Years*, 1997, because the data for Australia have since been revised.

[3] Country did not satisfy one or more of the sampling or other guidelines. See the supplemental note to this indicator for further explanation.

NOTE: Nations are sorted from highest to lowest by average mathematics score.

SOURCE: International Association for the Evaluation of Educational Achievement, TIMSS International Study Center, *Mathematics Achievement in the Primary School Years, IEA's Third International Mathematics and Science Study*, 1997 and *Science Achievement in the Primary School Years, IEA's Third International Mathematics and Science Study*, 1997.

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Table 3-2 Average mathematics and science performance scores of 8th-grade students,[1] by sex and country: 1995

Country	Mathematics			Science		
	Overall	Male	Female	Overall	Male	Female
International average	**513**	**519**	**512**	**516**	**525**	**509**
Singapore	643	642	645	607	612	603
Korea	607	615	598	565	576	551
Japan	605	609	600	571	579	562
Hong Kong	588	597	577	522	535	507
Belgium (Flemish)	565	563	567	550	558	543
Czech Republic	564	569	558	574	586	562
Slovak Republic	547	549	545	544	552	537
Switzerland	545	548	543	522	529	514
Netherlands[2]	541	545	536	560	570	550
Slovenia[2]	541	545	537	560	573	548
Bulgaria[2]	540	—	—	565	—	—
Austria[2]	539	544	536	558	566	549
France	538	542	536	498	506	490
Hungary	537	537	537	554	563	545
Russian Federation	535	535	536	538	544	533
Australia[2]	530	527	532	545	550	540
Canada	527	526	530	531	537	525
Ireland	527	535	520	538	544	532
Belgium (French)[2]	526	530	524	471	479	463
Israel[2]	522	539	509	524	545	512
Thailand[2]	522	517	526	525	524	526
Sweden	519	520	518	535	543	528
Germany[2]	509	512	509	531	542	524
New Zealand	508	512	503	525	538	512
England[2]	506	508	504	552	562	542
Norway	503	505	501	527	534	520
Denmark[2]	502	511	494	478	494	463
United States	500	502	497	534	539	530
Scotland[2]	498	506	490	517	527	507
Latvia (Latvian-speaking schools)[2]	493	496	491	485	492	478
Iceland	487	488	486	494	501	486
Spain	487	492	483	517	526	508
Greece[2]	484	490	478	497	505	489
Romania[2]	482	483	480	486	492	480
Lithuania[2]	477	477	478	476	484	470
Cyprus	474	472	475	463	461	465
Portugal	454	460	449	480	490	468
Iran, Islamic Republic	428	434	421	470	477	461
Kuwait[2]	392	—	—	430	—	—
Colombia[2]	385	386	384	411	418	405
South Africa[2]	354	360	349	326	337	315

— Not available.

[1] Eighth grade in most nations.

[2] Country did not satisfy one or more of the sampling or other guidelines. See the supplemental note to this indicator for further explanation.

NOTE: Nations are sorted from highest to lowest by average mathematics score.

SOURCE: International Association for the Evaluation of Educational Achievement, TIMSS International Study Center, *Mathematics Achievement in the Middle School Years, IEA's Third International Mathematics and Science Study*, 1996 and *Science Achievement in the Middle School Years, IEA's Third International Mathematics and Science Study*, 1996.

Data collection and sampling guidelines for the TIMSS

Indicators 3 and *16* include data from the Third International Mathematics and Science Study (TIMSS), which assessed and collected data for more than half a million students at various levels, encompassing three separate populations. The indicators in this publication used data from *Population 1, Population 2,* and *Population 3,* as defined below:

- *Population 1*: Students enrolled in the two adjacent grades that contained the largest proportion of 9-year-old students at the time of the assessment—3rd- and 4th-grade students in most countries.
- *Population 2*: Students enrolled in the two adjacent grades that contained the largest proportion of 13-year-old students at the time of the assessment—7th- and 8th-grade students in most countries.
- *Population 3*: Students enrolled in their final year of secondary education, which ranged from 9th to 14th grade. In many countries, students in more than one grade participated in the study because the length of secondary education varied by type of program (i.e., academic, technical, vocational).

Table 1. Countries participating in the TIMSS, by population covered

Country	Population 1	Population 2	Population 3 General knowledge	 Advanced mathematics	 Physics
Argentina		✓			
Australia	✓	✓	✓	✓	✓
Austria	✓	✓	✓	✓	✓
Belgium (Flemish)		✓			
Belgium (French)		✓			
Bulgaria		✓			
Canada	✓	✓	✓	✓	✓
Colombia		✓			
Cyprus	✓	✓	✓	✓	✓
Czech Republic	✓	✓	✓	✓	✓
Denmark		✓	✓	✓	✓
England	✓	✓			
France		✓	✓	✓	✓
Germany		✓	✓	✓	✓
Greece	✓	✓		✓	✓
Hong Kong	✓	✓			
Hungary	✓	✓	✓		
Iceland	✓	✓	✓		
Indonesia	✓	✓			
Iran, Islamic Republic	✓	✓			
Ireland	✓	✓			
Israel	✓	✓	✓	✓	✓
Italy	✓	✓	✓		
Japan	✓	✓			
Korea	✓	✓			
Kuwait	✓	✓			
Latvia	✓	✓			✓
Lithuania		✓	✓	✓	
Mexico	✓	✓			
Netherlands	✓	✓	✓		
New Zealand	✓	✓	✓		
Norway	✓	✓	✓		✓
Philippines		✓			
Portugal	✓	✓			
Romania		✓			
Russian Federation		✓	✓	✓	✓
Scotland	✓	✓			
Singapore	✓	✓			
Slovak Republic		✓			
Slovenia	✓	✓	✓	✓	✓
South Africa		✓	✓		
Spain		✓			
Sweden		✓	✓	✓	✓
Switzerland		✓	✓	✓	✓
Thailand	✓	✓			
United States	✓	✓	✓	✓	✓

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It is important to note that because countries varied in how they defined their population and in their compliance with the TIMSS sampling guidelines, caution should be taken in interpreting cross-country comparisons.

All countries that participated in the study were required to administer assessments to the students in the two grades at *Population 2*, but could choose whether or not to participate in the assessments of other populations. Forty-six countries participated in the survey of *Population 2*, of which 14 participated in the general assessment for all three *Populations*. For *Population 3*, as an additional option, countries were able to test two subgroups of students in their last year of secondary education: students taking advanced courses in mathematics, and students taking physics.

Four countries—Argentina, Indonesia, Mexico, and the Philippines—were unable to complete the steps necessary for their data to appear in the International TIMSS reports, chose not to release their results in the international report, or had their results published in a separate appendix to the international reports. Achievement scores and sampling information for these four countries are not included in *The Condition of Education, 1999*.

The achievement scores for Italy are included in *The Condition of Education, 1999* only for *Population 3*. Italy was unable to complete the steps necessary for achievement score data to appear in the TIMSS reports for the primary and middle school years.

For all *Populations*, participants were required to meet various sampling and other guidelines. These guidelines, and the extent to which countries met them for each of the *Populations*, are described in the following sections.

Table 2. Countries covering less than 100 percent of the International Desired Population

Country		International Desired Population
Population 1	*Coverage*	
Israel	72%	Hebrew Public Education System only
Latvia	60%	Latvian-speaking schools only
Population 2	*Coverage*	
Germany	88%	15 of 16 regions
Israel	74%	Hebrew Public Education System only
Latvia	51%	Latvian-speaking schools only
Lithuania	84%	Lithuanian-speaking schools only
Philippines	91%	2 provinces/autonomous regions excluded
Switzerland	86%	22 of 26 cantons
Population 3	*Coverage*	
Israel	74%	Hebrew Public Education System only
Italy	70%	16 of 20 regions
Latvia	50%	Latvian-speaking students only
Lithuania	84%	Lithuanian-speaking students only

In some situations, where it was not possible to implement testing for the entire International Desired Population (*Population 1, 2,* or *3*), countries defined a National Desired Population, which excluded some portion of the International Desired Population. For example, Israel's and Latvia's populations covered less than 100 percent of the International Desired Population because they defined their population according to the structure of school systems.

Countries were also permitted within their desired population to define a population that excluded a small percentage (less than 10 percent) of schools or students that would be difficult to test (e.g., very small schools or schools located in a remote area). Only England exceeded the 10 percent level for *Populations 1* and 2, excluding 12.1 and 11.3 percent of schools, respectively. For *Population 3*, Austria, Cyprus, Germany, the Netherlands, and the Russian Federation exceeded the 10 percent level.

Table 3. Countries that participated in the TIMSS, by compliance with sampling guidelines for *Population 1*

Compliance with sampling guidelines	Countries
Population 1	
Countries satisfying guidelines for sample participation rates, grade selection, and sampling procedures	Canada
	Cyprus
	Czech Republic
	England[1 2]
	Greece
	Hong Kong
	Iceland
	Iran, Islamic Republic
	Ireland
	Japan
	Korea
	New Zealand
	Norway
	Portugal
	Scotland[2]
	Singapore
	United States
Countries not satisfying guidelines for sample participation rates	Australia
	Austria
	Latvia[3]
	Netherlands
Countries not meeting age/grade specifications	Slovenia
Countries with unapproved sampling procedures at the classroom level and/or not meeting other guidelines	Hungary
	Israel[1]
	Kuwait
	Thailand

[1] National defined population covers less than 90 percent of national desired population.

[2] Met guidelines for sample participation rates only after replacement schools were included.

[3] National defined population does not cover all of the international defined population. Because coverage falls below 65 percent, Latvia is annotated LSS for "Latvian-speaking schools" only.

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Table 4. Countries that participated in the TIMSS, by compliance with sampling guidelines for *Population* 2

Compliance with sampling guidelines	Countries
Population 2	
Countries satisfying guidelines for sample participation rates, grade selection, and sampling procedures	Belgium (Flemish)[2]
	Canada
	Cyprus
	Czech Republic
	England[1,2]
	France
	Hong Kong
	Hungary
	Iceland
	Iran, Islamic Republic
	Ireland
	Japan
	Korea
	Latvia[3]
	Lithuania[3]
	New Zealand
	Norway
	Portugal
	Russian Federation
	Singapore
	Slovak Republic
	Spain
	Sweden
	Switzerland[3]
	United States[2]
Countries not satisfying guidelines for sample participation rates	Australia
	Austria
	Belgium (French)
	Bulgaria
	Netherlands
	Scotland
Countries not meeting age/grade specifications	Colombia
	Germany[2,3]
	Romania
	Slovenia
Countries with unapproved sampling procedures at the classroom level and/or not meeting other guidelines	Denmark
	Greece
	Israel[3]
	Kuwait
	Philippines[4]
	South Africa[3]
	Thailand
Countries with unapproved sampling procedures at school level	Philippines[4]

[1] National defined population covers less than 90 percent of national desired population.

[2] Met guidelines for sample participation rates only after replacement schools were included.

[3] National defined population does not cover all of the international defined population. Because coverage falls below 65 percent, Latvia is annotated LSS for "Latvian-speaking schools" only.

[4] TIMSS was unable to compute sampling weights for the Philippines.

For *Populations* 1 and 2, TIMSS used a two-stage sample design. The first stage involved selecting 150 public and private schools within each country. Random sampling methods were then used to select from each school one mathematics class for each grade level within a population (generally 3rd and 4th for *Population 1*; and 7th and 8th for *Population 2*).

For *Population* 3, the first stage involved selecting 120 public and private schools in each country, and, within each school, 40 students were selected using random procedures. The required participation rates from the samples for all *Populations* were at least 85 percent of both schools and students or a combined student and school rate of 75 percent.

Countries that either did not reach a 50 percent participation rate without the inclusion of replacement schools, or failed to reach the required rate even with the inclusion of replacement schools, failed to meet participation standards.

Table 5. Countries that participated in the TIMSS, by compliance with sampling guidelines for *Population 3*

Compliance with sampling guidelines	Countries
Population 3	
Countries satisfying guidelines for sample participation rates, grade selection, and/or sampling procedures	Cyprus[1]
	Czech Republic
	Hungary
	Lithuania[3]
	New Zealand[2]
	Russian Federation[1]
	Sweden
	Switzerland
Countries not satisfying guidelines for sample participation rates	Australia
	Austria[1]
	Canada
	France
	Iceland
	Italy
	Norway
	United States
Countries with unapproved sampling procedures and/or not meeting other guidelines	Denmark
	Germany[2]
	Netherlands[1]
	Slovenia
	South Africa

[1] National defined population covers less than 90 percent of national desired population.

[2] Met guidelines for sample participation rates only after replacement schools were included.

[3] National defined population does not cover all of the international defined population. Because coverage falls below 65 percent, Latvia is annotated LSS for "Latvian-speaking schools" only.

SOURCE: International Association for the Evaluation of Educational Achievement, TIMSS International Study Center. *Mathematics Achievement in the Middle School Years: IEA's Third International Mathematics and Science Study (TIMSS)*. 1996; *Science Achievement in the Middle School Years: IEA's Third International Mathematics and Science Study (TIMSS)*. 1996; *Mathematics Achievement in the Primary School Years: IEA's Third International Mathematics and Science Study (TIMSS)*. 1997; *Mathematics and Science Achievement in the Final Year of Secondary School: IEA's Third International Mathematics and Science Study (TIMSS)*. 1998.

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Table 4-1 Reading anchor levels

Level 150:	**Simple, discrete reading tasks** Readers at this level can follow brief written directions. They can also select words, phrases, or sentences to describe a simple picture and can interpret simple written clues to identify a common object. Performance at this level suggests the ability to carry out simple, discrete reading tasks.
Level 200:	**Partial skills and understanding** Readers at this level can locate and identify facts from simple informational paragraphs, stories, and news articles. In addition, they can combine ideas and make inferences based on short, uncomplicated passages. Performance at this level suggests the ability to understand specific or sequentially related information.
Level 250:	**Interrelates ideas and makes generalizations** Readers at this level use intermediate skills and strategies to search for, locate, and organize the information they find in relatively lengthy passages and can recognize paraphrases of what they have read. They can also make inferences and reach generalizations about main ideas and the author's purpose from passages dealing with literature, science, and social studies. Performance at this level suggests the ability to search for specific information, interrelate ideas, and make generalizations.
Level 300:	**Understands complicated information** Readers at this level can understand complicated literary and informational passages, including material about topics they study at school. They can also analyze and integrate less familiar material and provide reactions to and explanations of the text as a whole. Performance at this level suggests the ability to find, understand, summarize, and explain relatively complicated information.
Level 350:	**Learns from specialized reading materials** Readers at this level can extend and restructure the ideas presented in specialized and complex texts. Examples include scientific materials, literary essays, and historical documents. Readers are also able to understand the links between ideas, even when those links are not explicitly stated, and to make appropriate generalizations. Performance at this level suggests the ability to synthesize and learn from specialized reading materials.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *NAEP 1996 Trends in Academic Progress*, revised 1998.

Table 5-1 Reading achievement levels

Basic:	**Grade 4 (scoring at or above 208)** Fourth-grade students performing at the Basic level should demonstrate an understanding of the overall meaning of what they read. When reading text appropriate for 4th-grade students, they should be able to make relatively obvious connections between the text and their own experiences and extend the ideas in the text by making simple references.
	Grade 8 (scoring at or above 243) Eighth-grade students performing at the Basic level should demonstrate a literal understanding of what they read and be able to make some interpretations. When reading text appropriate to 8th grade, they should be able to identify specific aspects of the text that reflect overall meaning, extend the ideas in the text by making simple inferences, recognize and relate interpretations and connections among ideas in the text to personal experience, and draw conclusions based on the text.
	Grade 12 (scoring at or above 265) Twelfth-grade students performing at the Basic level should be able to demonstrate an overall understanding and make some interpretations of the text. When reading text appropriate to 12th grade, they should be able to identify and relate aspects of the text to its overall meaning, extend the ideas in the text by making simple inferences, recognize interpretations, make connections among and relate ideas in the text to their personal experiences, and draw conclusions. They should be able to identify elements of an author's style.
Proficient:	**Grade 4 (scoring at or above 238)** Fourth-grade students performing at the Proficient level should be able to demonstrate an overall understanding of the text, providing inferential as well as literal information. When reading text appropriate to 4th grade, they should be able to extend the ideas in the text by making inferences, drawing conclusions, and making connection to their own experiences. The connection between the text and what the student infers should be clear.
	Grade 8 (scoring at or above 281) Eighth-grade students performing at the Proficient level should be able to show an overall understanding of the text, including inferential as well as literal information. When reading text appropriate to 8th grade, they should be able to extend the ideas in the text by making clear inferences from it, by drawing conclusions, and by making connections to their own experiences—including other reading experiences. Proficient 8th-graders should be able to identify some of the devices authors use in composing text.
	Grade 12 (scoring at or above 302) Twelfth-grade students performing at the Proficient level should be able to show an overall understanding of the text, including inferential as well as literal information. When reading text appropriate to 12th grade, they should be able to extend the ideas of the text by making inferences, drawing conclusions, and making connections to their own personal experiences and other readings. Connections between inferences and the text should be clear, even when implicit. These students should be able to analyze the author's use of literary devices.

Table 5-1 Reading achievement levels—Continued

Advanced:	**Grade 4 (scoring at or above 268)** Fourth-grade students performing at the Advanced level should be able to generalize about topics in the reading selection and demonstrate an awareness of how authors compose and use literary devices. When reading text appropriate to 4th grade, they should be able to judge text critically and, in general, give thorough answers that indicate careful thought. **Grade 8 (scoring at or above 323)** Eighth-grade students performing at the Advanced level should be able to describe the more abstract themes and ideas of the overall text. When reading text appropriate to 8th grade, they should be able to analyze both meaning and form and support their analyses explicitly with examples from the text; they should be able to extend text information by relating it to their experiences and to world events. At this level, student responses should be thorough, thoughtful, and extensive. **Grade 12 (scoring at or above 346)** Twelfth-grade students performing at the Advanced level should be able to describe more abstract themes and ideas in the overall text. When reading text appropriate to 12th grade, they should be able to analyze both the meaning and the form of the text and explicitly support their analyses with specific examples from the text. They should be able to extend the information from the text by relating it to their experiences and to the world. Their responses should be thorough, thoughtful, and extensive.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *NAEP 1998 Reading: A Report Card for the Nation and the States*, 1999.

Table 5-2 Percentage of students, by reading achievement level and grade: 1992, 1994, and 1998

Reading	Grade 4			Grade 8			Grade 12		
achievement level	1992	1994	1998	1992	1994	1998	1992	1994	1998
At advanced	6	7	7	3	3	3	4	4	6
At proficient	22	22	24	26	27	31	36	32	35
At basic	34	31	32	40	40	41	39	38	37
Below basic	38	40	38	31	30	26	20	25	23

NOTE: See supplemental table 5-1 for an explanation of the basic, proficient, and advanced levels of reading achievement. Details may not add to 100 due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *NAEP 1998 Reading, A Report Card for the Nation and the States*, 1999.

Overview of NAEP assessments

The National Assessment of Educational Progress (NAEP) has been administered regularly in several subjects since 1969, and has two goals: (1) to reflect current educational and assessment practices and (2) to measure change reliably over time. To meet these dual goals, NAEP administers two assessments, referred to as the *main* assessment and the *long-term trend* assessment. These two assessments are administered to separate samples of students, at separate times, and use separate instrumentation; therefore, data from the two should not be compared. NAEP data presented in *The Condition of Education, 1999* are taken from both types of assessments.

Main NAEP

The main NAEP periodically measures students' performance in a variety of subjects, following the curriculum frameworks developed by the National Assessment Governing Board (NAGB) and using the latest advances in assessment methodology. For example, the main NAEP follows curriculum standards developed within the field, such as the mathematics standards developed by the National Council of Teachers of Mathematics.

As the content and nature of the NAEP instruments evolve to match instructional practices, the ability of the assessment to measure change over time is greatly reduced. As standards for instruction and curriculum change, so does the main NAEP, and as a result, trend data cannot be collected. Recent NAEP main assessment instruments have typically been kept stable for relatively short periods of time, allowing trend results to be reported for, at most, three time points. However, for some subjects that are not assessed as frequently, such as performance in the arts, trend data are unavailable. Indicators 2, 5, and 7 are based upon the main NAEP.

Long-term trend NAEP

The long-term trend NAEP measures student performance in mathematics, science, reading, and writing, and has used the same instrument since its first administration in the late 1960s and early 1970s, and the early 1980s for writing. The long-term trend NAEP does not reflect current teaching standards or curricula because the same instruments have been used for nearly 30 years. The benefits of the long-term trend NAEP, however, are that progress in student performance can be measured over time. Indicators 1, 4, and 6 are based upon the long-term trend NAEP.

Another important difference between the two assessments is that they collect data from different age groups. As opposed to the main NAEP, in which results are reported by grade level (grades 4, 8, and 12), performance scores for most of the long-term trend assessments are reported for students by age. For mathematics, science, and reading, students at age 9, 13, and 17 are assessed. The long-term trend writing assessment is the only exception, with students in grades 4, 8, and 11 being assessed.

SOURCE: Calderone, J., King, L.M., and Horkay, N. 1997. *The NAEP Guide: A Description of the Content and Methods of the 1997 and 1998 Assessments* (NCES 97-990). Washington, D.C.: U.S. Department of Education, National Center for Education Statistics.

Table 6-1 Writing anchor levels

Level 150:	**Disjointed, unclear writing** Writing at this level tends to be too brief and disjointed to be considered a response to the task or, when longer, so vague and unclear that it is hard to understand.
Level 200:	**Incomplete, vague writing** Writing at this level, although clearer and more detailed than at the previous level, still tends to be vague and incomplete.
Level 250:	**Beginning, focused, clear writing** Writing at this level tends to be more focused and clear, containing enough development and detail likely to accomplish the assigned task successfully.
Level 300:	**Complete, sufficient writing** Responses at this level tend to be complete and to contain sufficient information to accomplish the basic task.
Level 350:	**Effective, coherent writing** Writing at this level provides clear complete responses to the assigned task. It tends to contain supportive details and discussion that contributes to the effectiveness of the response. This writing is also characterized by an overall unity and coherence not found at the lower levels.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress. *NAEP 1996 Trends in Academic Progress*, revised 1998.

Table 6-2 Percentage of students scoring at or above each of five anchor levels of writing performance: 1984–96

Proficiency levels	Grade	Year					
		1984	1988	1990	1992	1994	1996
Level 150:							
Disjointed, unclear	4	93	91	89	93	92	93
writing	8	100	100	[1]100	100	100	100
	11	100	100	100	100	100	100
Level 200:							
Incomplete, vague	4	54	56	53	58	56	59
writing	8	98	97	[1,2]93	98	96	[2]96
	11	100	100	99	100	99	99
Level 250:							
Beginning, focused,	4	10	[2]15	12	13	12	13
clear writing	8	72	67	[1,2]57	75	67	[2]66
	11	89	93	[1,2]84	87	[1]85	[2]83
Level 300:							
Complete, sufficient	4	1	1	1	1	0	1
writing	8	13	13	[1]12	[1,2]25	17	16
	11	39	39	37	36	33	[2]31
Level 350:							
Effective, coherent	4	0	0	0	0	0	0
writing	8	0	0	[2]1	[1,2]2	[2]1	1
	11	2	1	4	2	3	2

[1] Statistically significant difference from 1996.

[2] Statistically significant difference from 1984.

NOTE: See table 6-1 for detailed explanations of levels.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *NAEP 1996 Trends in Academic Progress*, revised 1998.

Table 6-3 Percentile distribution of writing performance scores, by grade and race–ethnicity: 1984–96

	Grade 4						Grade 8						Grade 11					
Percentile	1984	1988	1990	1992	1994	1996	1984	1988	1990	1992	1994	1996	1984	1988	1990	1992	1994	1996
All students																		
5	144	135	131	142	140	142	216	209	195	214	204	202	236	244	227	233	227	225
10	157	151	147	157	155	158	227	222	208	227	218	216	249	255	240	246	240	238
25	179	177	174	182	180	182	247	242	231	250	242	240	269	273	262	266	262	260
50	204	207	203	208	206	209	268	264	257	275	266	264	291	292	288	288	285	283
75	229	235	231	233	232	234	288	286	282	300	290	288	312	311	312	310	308	307
90	250	259	255	256	253	255	304	305	304	320	311	310	330	326	334	328	328	327
95	263	274	268	269	266	268	313	316	318	332	323	322	340	335	347	338	340	339
White																		
5	155	151	146	159	156	159	224	216	202	220	214	213	249	252	235	244	237	234
10	167	165	162	172	170	171	235	229	215	234	228	227	260	263	247	256	248	247
25	188	189	186	194	192	192	253	248	237	256	250	249	277	279	269	275	269	266
50	211	216	211	217	215	217	273	270	262	280	273	272	298	297	294	295	291	289
75	233	242	237	240	238	240	291	290	287	304	295	294	316	314	317	314	313	311
90	255	265	260	261	258	260	306	309	308	324	315	314	333	329	338	331	333	331
95	266	278	272	273	270	272	315	319	322	335	327	326	343	338	350	341	344	343
Black																		
5	124	109	105	117	114	122	201	194	182	200	190	184	222	232	213	216	214	213
10	135	122	120	130	127	135	212	205	193	212	201	197	232	243	225	226	226	224
25	160	148	144	152	150	155	228	226	216	232	222	218	252	258	245	245	246	245
50	182	173	172	176	173	182	248	247	240	257	245	243	270	276	268	264	267	267
75	205	200	198	198	196	206	265	266	263	282	268	265	290	294	291	283	289	289
90	228	224	223	218	217	229	281	285	284	306	288	285	309	309	311	300	309	310
95	240	238	239	229	231	242	292	296	297	319	300	297	318	318	324	309	320	324
Hispanic																		
5	130	125	120	132	131	126	197	199	187	203	192	187	208	228	217	220	212	213
10	141	139	135	144	143	141	207	210	199	219	204	202	216	236	232	234	224	224
25	162	163	159	166	164	166	225	230	220	242	227	223	238	256	253	252	250	245
50	188	191	184	189	188	192	247	251	246	265	252	246	260	274	275	275	273	268
75	214	218	210	213	213	216	268	271	270	288	276	270	281	294	301	294	294	291
90	234	241	234	234	234	237	286	290	292	310	298	291	297	309	324	314	313	312
95	247	256	248	247	245	250	298	301	305	324	308	303	306	316	338	324	327	326

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *NAEP 1996 Trends in Academic Progress*, revised 1998.

Table 7-1 Average music, theatre, and visual arts performance scores, by various characteristics of arts education: 1997

Characteristics of arts education	Music: Creating (0–100 percent)	Music: Performing (0–100 percent)	Music: Responding (0–300)	Theatre[1]: Creating/performing (0–100 percent)	Theatre[1]: Responding (0–300)	Visual arts: Creating (0–100 percent)	Visual arts: Responding (0–300)
Total	**34**	**34**	**150**	**49**	**150**	**43**	**150**
Frequency of instruction							
At least 3 or 4 times a week	33	34	151	47	149	45	147
Once or twice a week	35	33	154	55	156	44	155
Less than once a week	37	34	146	(2)	(2)	35	137
Subject not taught	41	(2)	139	—	—	42	150
District or state curriculum in subject area							
Yes	34	34	151	49	154	44	148
No	35	35	152	50	149	43	153
Use visiting artists							
Yes	32	34	151	50	153	44	151
No	37	34	151	50	148	43	149
Position of arts staff person							
Full-time specialist	35	33	151	48	149	44	150
Part-time specialist	33	37	150	52	146	42	154
Elementary classroom teacher	(2)	(2)	(2)	(2)	(2)	39	151
Other faculty member	(2)	(2)	(2)	(2)	(2)	45	151
Artist-in-residence	(2)	(2)	(2)	(2)	(2)	(2)	(2)
Volunteer	(2)	(2)	(2)	(2)	(2)	(2)	(2)
Subject is not taught	(2)	(2)	132	(2)	(2)	41	146
Type of space where arts is taught							
Room/stage dedicated to subject, with special equipment	37	34	154	54	161	45	152
Room/stage dedicated to subject, without special equipment	34	35	150	(2)	(2)	43	148
(For theatre only), Room, no stage	—	—	—	46	141	—	—
No dedicated space[3]	21	23	139	—	—	(2)	(2)
Classrooms only	29	(2)	155	(2)	(2)	37	148
Other	(2)	(2)	(2)	(2)	(2)	(2)	(2)
Subject is not taught	(2)	(2)	(2)	(2)	(2)	40	140

— Not available/applicable.

[1] The theatre assessment was administered to a targeted sample of students in schools with theatre instructional programs who had taken at least 30 hours of theatre classes.

[2] Not available.

[3] "No dedicated space" indicates a room without a stage for theatre education and classrooms used only for visual arts education.

NOTE: Students were assessed in the arts on three separate scales: Responding, Creating, and Performing. Because sampling and scoring procedures varied by arts subject and arts proficiency type, comparisons cannot be made across assessments. See the supplemental note to this indicator for a description of the NAEP Arts Education Assessment, including definitions for "responding," "creating," and "performing."

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *The NAEP 1997 Arts Report Card*, 1998.

Information on NAEP Arts Education Assessment

The National Assessment of Educational Progress (NAEP) 1997 Arts Education Assessment was administered to a nationally representative sample of 8th-grade students for music and visual arts, and to a targeted sample of 8th-grade students for theatre.* Students participating in the theatre assessment had accumulated 30 hours of theatre classes by the end of the 1996–97 school year and attended schools that offered at least 44 classroom hours of theatre per semester, offering courses that included more than the history or literature of theatre.

The arts assessment was designed according to the specifications of the NAEP *Arts Education Assessment Framework*, developed between 1992 and 1994. This framework was developed through a consensus process involving arts educators, artists, policy makers, representatives from the business community, assessment specialists, and members of the public. Mirroring this framework, the Arts Education Assessment was built around three arts processes—*Creating*, *Performing*, and *Responding*, defined below:

- *Creating* refers to generating original art. This may include, but should not be limited to, the expression of a student's unique and personal ideas, feelings, and responses in the form of a visual image, a character, a written or improvised dramatic work, or the composition or improvisation of a piece of music or a dance.
- *Performing* means performing an existing work, a process that calls upon the interpretive or re-creative skills of the student. Typically, "performing" an existing work does not apply to the visual arts, where reproducing an artist's existing work is not central. However, it does suggest the engagement and motivation involved in creating a work of art.
- *Responding* varies from that of an audience member to the interactive response between a student and a particular medium. The response is usually a combination of affective, cognitive, and physical behavior. Responding involves a level of perceptual or observational skill; a description, analysis, or interpretation on the part of the respondent; and sometimes a judgment or evaluation based on some criteria that may be self-constructed or commonly held by a group or culture. Responding calls on higher-order thinking and is central to the creative process. Although a response is usually thought of as verbal (oral or written), responses can and should also be conveyed nonverbally or in the art forms themselves. Major works of art in all traditions engage artists in a dialogue that crosses generations.

In music, the processes of Creating, Performing, and Responding were all emphasized. In theatre, Creating and Performing were understood as a combined act. In visual arts, Creating is more highly valued than the performance, or duplication, of existing works; Performing in the visual arts was, therefore, not included in the assessment.

The assessments in each subject area included "blocks," or sets of questions, of approximately 25 or 50 minutes. Each block consisted of one or more stimuli and sets of multiple-choice, constructed-response, or Creating/Performing items to assess students' mastery of the material. Students sampled for the music assessment and for the theatre assessment completed one of the Creating/Performing blocks and two Responding blocks. For the visual arts assessment, students either completed one Responding block and one Creating block, or two Creating blocks.

Responding results for music, theatre, and the visual arts were grouped and summarized on three NAEP arts Responding scales, which ranged from 0 to 300. Creating and Performing results, however, were not scaled in this way because each student took only one Creating/Performing task, and therefore there were not sufficient numbers of students taking a given group of exercises. Instead, Creating and Performing results were summarized as an average percentage of the maximum possible score. Because the scales in each content area are derived independently, the same score in two areas may not represent the same level of achievement. Consequently, comparisons of average scores across content areas are not inherently meaningful.

* The assessment was also designed and field tested for dance; however, a sample suitable in size and national distribution could not be found.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *The NAEP 1997 Arts Report Card*, 1998.

Table 8-1 Percentage of adults ages 16–65 at each level of education who scored at level 3 or above in document literacy, by country: 1994

	Prose scale				Document scale				Quantitative scale			
Country	Level 1	Level 2	Level 3	Level 4/5	Level 1	Level 2	Level 3	Level 4/5	Level 1	Level 2	Level 3	Level 4/5
Belgium (Flanders)*	18.6	29.0	37.4	15.0	15.0	25.7	41.5	17.5	16.5	23.3	37.0	23.2
Canada	16.6	24.8	36.4	22.3	17.9	23.7	32.7	25.7	16.6	25.6	34.7	23.1
Germany	13.8	35.3	37.3	13.6	9.6	32.0	39.5	18.9	7.0	26.1	43.6	23.4
Ireland*	22.6	30.6	33.7	13.2	25.6	32.0	31.5	10.9	24.9	28.8	30.3	15.9
Netherlands	10.4	29.4	44.7	15.5	10.3	25.5	44.5	19.7	10.0	25.7	44.1	20.3
New Zealand*	18.2	28.5	34.5	18.8	21.1	29.6	32.5	16.8	20.3	28.9	33.9	16.9
Poland	42.7	34.3	19.2	3.7	45.4	30.3	18.5	5.8	39.0	30.6	23.2	7.2
Sweden	7.2	20.7	39.8	32.2	6.3	19.2	38.8	35.7	6.6	19.1	38.4	35.9
Switzerland (French)	18.5	34.3	37.7	9.6	16.4	29.6	37.6	16.3	12.8	25.4	42.7	19.1
Switzerland (German)	19.5	34.2	37.1	9.3	18.4	27.5	36.9	17.3	14.1	25.0	41.9	19.0
United Kingdom*	21.6	30.1	32.6	15.7	23.1	27.6	30.5	18.8	23.4	27.6	30.5	18.5
United States	20.8	24.4	32.8	22.0	23.6	25.0	31.5	19.9	21.0	24.0	31.6	23.5

— Not available.

* Data are for 1995.

NOTE: See the supplemental note to this indicator for a description of the literacy scales and levels.

SOURCE: Organisation for Economic Co-operation and Development, *International Adult Literacy Survey*, unpublished tabulations, 1994, 1995.

Information on the International Adult Literacy Survey (IALS)

The International Adult Literacy Survey (IALS) was a collaborative effort by seven governments and three intergovernmental organizations. This survey reports the results of a wide-ranging test of literacy skills given to a large sample of adults (ranging from 1,500 to 1,800 per country) in Europe and North America in fall 1994 and in additional countries in Europe and Australia in fall 1995, for a total of 12 countries.[*] Each country was required to draw a probability sample from which results representative of the civilian, noninstitutionalized population aged 16 to 65 could be derived. In nine countries, the survey was carried out in the national language; in Canada, respondents were given a choice of English or French; in Switzerland, samples drawn from French-speaking and German-speaking cantons were required to respond in those respective languages; and in Belgium, only the Flemish-speaking communities were tested.

Literacy is not limited to a single skill suited for dealing with all types of text, nor is it defined as an infinite set of skills. As a result, the IALS defined literacy in terms of three domains, each encompassing a common set of skills relevant for diverse tasks:

- *Prose literacy*: the knowledge and skills needed to understand and use information from texts including editorials, news stories, poems, and fiction;
- *Document literacy*: the knowledge and skills required to locate and use information contained in various formats, including job applications, payroll forms, transportation schedules, maps, tables, and graphics; and
- *Quantitative literacy*: the knowledge and skills required to apply arithmetic operations, either alone or sequentially, to numbers embedded in printed materials, such as balancing a checkbook, figuring a tip, completing an order form, or determining the amount of interest on a loan from an advertisement.

In each of these three domains, rather than expressing a threshold for achieving literacy, a scale from 0 to 500 was constructed, upon which tasks of varying difficulty were placed. These scales were developed through the item response theory (IRT) scaling procedures. First, the difficulty of tasks was ranked on the scale according to how well respondents actually performed on them. Then, each scale was divided into five levels reflecting the empirically determined progression of information-processing skills and strategies. Next, individuals were assigned scores between 0 and 500 according to how well they did on a variety of tasks at different levels. Finally, the percentage of readers in each skill level was calculated.

A person's literacy ability in each domain can be expressed by a score, defined as the point at which he or she has an 80 percent chance of successfully performing a given task. If a person's score places them in level 2, it means that they have an 80 percent chance of successfully performing level 2 tasks and a greater than 80 percent chance of performing level 1 tasks. It does not mean, however, that individuals with low proficiency can never succeed at more difficult tasks—that is, on tasks that are rated at higher skill levels. It means only that their probability of success is relatively low. Below is a description of the three literacy scales and the tasks required at each proficiency level:

Prose literacy

Prose literacy includes text from newspapers, magazines and brochures accompanied by one or more questions or directives asking the reader to perform specific tasks. These tasks represent three major aspects of information-processing: locating, integrating, and generating. Locating tasks require the reader to find information in the text based on conditions or features specified in the question or directive. Integrating tasks ask the reader to pull together two or more pieces of information in the text. In the generating tasks, readers must produce a written response by processing information from the text and also by making text-based inferences or drawing on their own background knowledge.

- *Prose Level 1 (Difficulty values 0–225):* Most of the tasks at this level require the reader to locate and match a single piece of information in the text that is identical to or synonymous with the information given in the directive. If a plausible incorrect answer is present in the text, it tends not to be near the correct information.
- *Prose Level 2 (Difficulty values 226–275):* Tasks at this level tend to require the reader to locate one or more pieces of information in the text, but several distracters may be present, or low-level inferences may be required. Tasks at this level also begin to ask readers to integrate two or more pieces of information, or to compare and contrast information.

- *Prose Level 3 (Difficulty values 276–325):* Tasks at this level tend to direct readers to search texts to match information that require low-level inferences or that meet specified conditions. Sometimes the reader is required to identify several pieces of information that are located in different sentences or paragraphs rather than in a single sentence. Readers may also be asked to integrate or to compare and contrast information across paragraphs or sections of text.
- *Prose Level 4 (Difficulty values 326–375):* These tasks require readers to perform multiple-feature matching or to provide several responses in which the requested information must be identified through text-based inferences. Tasks at this level may also require the reader to integrate or contrast pieces of information, sometimes presented in relatively lengthy texts. Typically, theses texts contain more distracting information and the information that is requested is more abstract.
- *Prose Level 5 (Difficulty values 376–500):* Some tasks at this level require the reader to search for information in dense text that contains a number of plausible distracters. Some require readers to make high-level inferences or use specialized knowledge.

Document literacy

Document literacy involves using materials such as tables, schedules, graphs, maps, and forms. Questions or directives associated with the various document tasks are basically of four types: locating, cycling, integrating, and generating. Locating, integrating, and generating refer to the same skills in document literacy as in prose literacy. Cycling tasks require the reader to locate and match one ore more features of information, but differ from locating tasks because they require the reader to engage in a series of feature matches to satisfy conditions given in the question.

- *Document Level 1 (Difficulty values 0–225):* Most of the tasks at this level require the reader to locate a piece of information based on a literal match. Distracting information, if present, is typically located away from the correct answer. Some tasks may direct the reader to enter personal information onto a form.
- *Document Level 2 (Difficulty values 226–275):* Document tasks at this level are more varied. While some tasks still require the reader to match on a single feature, more distracting information may be present or the match may require a low-level inference. Some tasks at this level may require the reader to enter information onto a form or to cycle through information in a document.
- *Document Level 3 (Difficulty values 276–325):* Tasks at this level appear to be most varied. Some require the reader to make literal or synonymous matches, but usually the matches require the reader to take conditional information in to account or to match on multiple features of information.
- *Document Level 4 (Difficulty values 326–375):* Tasks at this level, like those in the previous levels, ask the reader to match on multiple features of information, to cycle through documents, and to integrate information; frequently, however, these tasks require the reader to make higher-order inferences to arrive at the correct answer. Conditional information is occasionally present in the document, which the reader must take into account.
- *Document Level 5 (Difficulty values 376–500):* Tasks at this level require the reader to search through complex displays of information that contain multiple distracters, to make high-level inferences, process conditional information, or use specialized knowledge.

Quantitative Literacy

Quantitative literacy involves using numbers and arithmetic operations to complete a task. These numbers often must be located and extracted from different types of documents that contain similar but irrelevant information, be inferred from printed directions, or undergo multiple operations.

- *Quantitative Level 1 (Difficulty values 0–225):* Although no quantitative tasks used in the IALS fall below the score value of 225, experience suggests that such tasks would require the reader to perform a single, relatively simple operation (usually addition) for which either the numbers are already entered onto the given document and the operation is stipulated, or the numbers are provided and the operation does not require the reader to borrow.
- *Quantitative Level 2 (Difficulty values 226–275):* Tasks in this level typically require readers to perform a single arithmetic operation (frequently addition or subtraction) using numbers that are easily located in the text or document. The operation to be performed may be easily inferred from the wording of the question or the format of the

material (for example, a bank deposit form or an order form).

- *Quantitative Level 3 (Difficulty values 276–325):* Tasks found in this level typically require the reader to perform a single operation. However, the operations become more varied—some multiplication and division tasks are found in this level. Sometimes two or more numbers are needed to solve the problem, and the numbers are frequently embedded in more complex displays. While semantic relation terms such as "how many" or "calculate the difference" are often used, some tasks require the reader to make higher-order inferences to determine the appropriate operation.
- *Quantitative Level 4 (Difficulty values 326–375):* With one exception, the tasks at this level require the reader to perform a single arithmetic operation where typically either the quantities or the operation are not easily determined. That is, for most of the tasks at this level, the question or directive does not provide a semantic relation term such as "how many" or "calculate the difference" to help the reader.
- *Quantitative Level 5 (Difficulty values 376–500):* These tasks require readers to perform multiple operations sequentially; they must pull out the features of the problem from the material provided or rely on background knowledge to determine the quantities or operations needed.

* Australia participated in the IALS, but it chose not to release their data; thus, its results are not reported here.

SOURCE: Organisation for Economic Co-operation and Development and Statistics Canada, *Literacy, Economy, and Society: Results of the International Adult Literacy Survey*, 1995.

Table 9-1 Political knowledge of students in grades 9–12, by selected student characteristics: 1996

Selected student characteristics	Percentage of students who gave correct answers to political items*		
	None or one	Two or three	Four or five
Total	**49.1**	**31.3**	**19.6**
Sex			
Male	43.4	32.1	24.5
Female	55.1	30.5	14.3
Race–ethnicity			
White	43.0	32.9	24.2
Black, Hispanic, or other	62.3	28.0	9.7
Academic performance			
A	32.9	35.2	31.9
B	50.0	33.0	17.0
C	63.7	25.2	11.1
D–F	70.5	24.5	5.0
Language spoken most at home by student			
English	47.8	31.8	20.4
Other	68.7	24.4	7.0
Parents' highest educational level			
Less than high school	75.1	20.0	4.9
High school only	61.4	27.5	11.1
Some college/vocational/technical	48.9	34.4	16.7
Bachelor's degree	34.9	36.5	28.7
Graduate/professional school	25.7	34.7	39.6
Control of school			
Public	50.7	30.8	18.6
Private	33.4	37.2	29.4
Participation in community service during school year			
No participation	57.7	28.9	13.3
Once or twice	43.2	34.2	22.6
Regularly/under 35 hours	40.7	34.3	25.0
Regularly/35 hours or more	36.5	32.4	31.1

* Students were given one of the two sets of questions. The first set includes the following five questions: 1) What job or political office is now held by Al Gore? 2) Whose responsibility is it to determine if a law is constitutional or not? 3) Which party now has the most members in the House of Representatives in Washington? 4) How much of a majority is required for the U.S. Senate and House to override a presidential veto? 5) Which of the two major parties is more conservative at the national level? The second set includes the following five questions: 1) What job or political office is now held by Newt Gingrich? 2) Whose responsibility is it to nominate judges to the federal courts? 3) Which party now has the most members in the U.S. Senate? 4) What are the first ten amendments to the U.S. Constitution called? 5) Which of the two major parties is in favor of the larger defense budget?

NOTE: Details may not add to 100.0 due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey, Spring 1996 (Youth Civic Involvement Component and Parent and Family Involvement in Education and Civic Involvement Component).

Table 9-2 Attention to politics, participation skills, political efficacy, and tolerance of diversity of students in grades 9–12, by selected student characteristics: 1996

	Percentage of students who reported:							
	Attention to politics		Political participation skills		Political efficacy		Tolerance of diversity	
Selected student characteristics	They read national news at least once a week	They watch or listen to national news almost daily	They could write a letter to a government office	They could make a statement at a public meeting	They understand politics or government	Their family has a say in what government does	People should be allowed to speak against religion	Controversial books could be kept in a public library
Total	**41.1**	**39.6**	**93.4**	**82.4**	**55.0**	**64.2**	**88.3**	**56.9**
Sex								
Male	45.7	42.9	92.0	80.7	58.5	62.4	88.2	59.0
Female	36.2	36.1	94.8	84.3	51.4	66.2	88.3	54.7
Race–ethnicity								
White	43.4	37.6	93.5	82.3	58.1	64.5	89.9	60.2
Black, Hispanic, or other	36.1	43.8	93.1	82.8	48.4	63.8	84.8	49.7
Academic performance								
A	46.2	41.7	95.6	86.2	64.8	70.0	88.3	59.8
B	38.7	38.2	93.1	80.7	53.6	63.3	88.9	56.5
C	39.9	40.7	91.3	81.1	46.9	60.2	86.7	54.6
D–F	34.4	31.7	91.3	79.4	47.2	56.3	90.3	53.2
Language spoken most at home by student								
English	41.5	39.4	93.5	82.6	56.1	64.7	89.1	57.6
Other	34.4	42.5	91.2	80.6	38.6	56.5	74.4	46.0
Parents' highest educational level								
Less than high school	32.1	42.8	91.5	77.9	40.6	52.4	80.1	47.0
High school only	35.6	38.7	91.5	80.1	48.4	58.0	88.6	52.6
Some college/vocational/technical	39.8	38.1	93.6	83.7	54.4	65.9	87.4	54.4
Bachelor's degree	46.2	38.8	95.3	83.4	59.2	68.9	90.3	65.5
Graduate/professional school	53.5	42.6	95.7	86.2	72.6	75.1	92.1	66.6
Control of school								
Public	40.8	39.3	93.1	81.7	53.8	63.3	88.0	56.0
Private	43.6	42.9	96.4	89.6	67.0	73.3	90.9	65.4
Participation in community service during school year								
No participation	37.7	38.3	91.4	77.2	48.5	60.6	87.1	55.7
Once or twice	39.4	37.3	95.4	85.1	56.6	65.8	89.8	55.3
Regularly/under 35 hours	47.6	42.0	95.1	88.8	63.5	69.1	88.4	60.6
Regularly/35 hours or more	49.4	45.6	95.4	90.1	67.2	69.6	89.5	60.0

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey, Spring 1996 (Youth Civic Involvement Component and Parent and Family Involvement in Education and Civic Involvement Component).

Table 10-1 Employment rates for recent high school completers not enrolled in college and for recent high school dropouts, by sex: October 1960–97

October	Recent high school completers not enrolled in college			Recent high school dropouts		
	Total	Male	Female	Total	Male	Female
1960	65.0	75.3	58.8	50.9	61.8	40.8
1961	65.4	70.1	62.5	49.4	60.3	38.3
1962	68.3	77.8	61.5	40.4	61.9	23.3
1963	64.7	72.6	59.5	45.1	64.4	27.0
1964	63.4	79.2	53.5	41.6	63.0	24.0
1965	71.9	84.3	63.2	47.9	66.8	26.8
1966	64.9	79.7	55.8	51.4	69.4	33.6
1967	65.9	78.3	57.7	50.3	65.0	34.4
1968	67.3	79.1	60.2	50.0	65.5	34.0
1969	70.1	83.1	61.1	51.0	69.8	30.9
1970	63.2	76.1	52.6	44.7	56.5	31.9
1971	65.1	77.5	55.6	46.8	59.3	31.7
1972	70.1	79.9	62.2	46.8	64.7	28.3
1973	70.7	81.7	61.9	52.7	62.5	40.0
1974	69.1	76.0	63.2	49.3	63.8	32.2
1975	65.1	74.1	57.5	41.9	54.8	29.5
1976	68.8	75.9	61.7	44.8	58.0	28.2
1977	72.0	77.7	67.2	52.7	64.0	39.3
1978	74.9	81.6	67.5	51.2	63.7	34.8
1979	72.4	79.2	66.7	49.7	65.3	34.3
1980	68.9	72.6	65.0	44.6	51.9	34.8
1981	65.9	70.0	62.1	42.1	54.1	29.3
1982	60.4	64.9	56.0	38.0	44.4	30.5
1983	63.0	66.1	60.1	44.4	51.6	35.8
1984	64.0	69.1	59.7	44.0	53.1	33.7
1985	62.0	65.0	59.3	44.2	51.9	35.8
1986	65.2	69.4	61.6	48.0	57.9	36.8
1987	68.9	76.9	61.9	41.8	46.0	36.6
1988	71.9	74.2	69.5	43.6	53.7	30.6
1989	71.7	77.4	65.6	46.7	52.2	40.1
1990	67.8	73.1	61.9	46.3	51.3	40.6
1991	59.6	62.2	56.1	36.8	48.8	25.0
1992	62.7	68.8	55.8	36.2	44.8	28.7
1993	64.2	67.6	60.6	46.9	61.6	30.1
1994	64.2	70.4	57.7	42.9	58.2	27.1
1995	63.1	64.1	62.3	47.7	52.8	41.1
1996	59.0	61.6	55.9	42.3	51.0	34.1
1997	66.9	73.7	59.0	44.9	57.2	28.1

NOTE: Recent high school completers are individuals ages 16–24 who completed high school during the survey year. Recent high school dropouts are individuals ages 16–24 who had not completed high school, were not enrolled during the survey month, and were in school 12 months earlier. In 1994, the survey instrument for the CPS was changed and weights were adjusted. See the supplemental note to *Indicator 51* for further discussion.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, *Labor Force Statistics Derived from the Current Population Survey: 1940–87*, and U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Table 12-1 Ratio* of median annual earnings of all male to all female wage and salary workers ages 25–34, by educational attainment: 1970–97

Year	Grades 9–11	High school completer	Some college	Bachelor's degree or higher
1970	3.40	2.42	2.21	1.64
1971	3.09	2.36	2.17	1.54
1972	3.01	2.40	2.05	1.59
1973	2.93	2.47	1.93	1.61
1974	3.05	2.35	2.00	1.55
1975	2.65	2.17	1.87	1.47
1976	2.70	2.10	1.91	1.58
1977	2.56	2.08	1.74	1.60
1978	3.05	2.14	1.92	1.63
1979	2.24	2.08	1.84	1.55
1980	2.22	1.95	1.64	1.53
1981	2.23	1.86	1.61	1.56
1982	1.90	1.77	1.64	1.46
1983	1.86	1.76	1.61	1.43
1984	1.94	1.73	1.64	1.46
1985	1.86	1.66	1.67	1.47
1986	1.80	1.67	1.62	1.41
1987	1.78	1.66	1.50	1.38
1988	2.09	1.73	1.45	1.35
1989	1.95	1.75	1.49	1.32
1990	2.04	1.65	1.42	1.27
1991	1.66	1.65	1.42	1.32
1992	1.42	1.59	1.34	1.27
1993	1.82	1.60	1.37	1.26
1994	1.79	1.54	1.46	1.26
1995	1.89	1.58	1.37	1.28
1996	1.73	1.61	1.44	1.33
1997	1.77	1.57	1.44	1.24

* This ratio is most useful when compared with 1.0. For example, the ratio of 1.24 in 1997 for those whose highest education level was a bachelor's degree or higher means that males who had attained a bachelor's degree or higher earned 24 percent more than females with the same level of educational attainment.

NOTE: The Current Population Survey (CPS) questions used to obtain educational attainment were changed in 1992. See the supplemental note to *Indicator 59* for further discussion. In 1994, the survey instrument for the CPS was changed and weights were adjusted. See the supplemental note to *Indicator 51* for further discussion.

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

Table 13-1 Percentage distribution of 1992–93 bachelor's degree recipients according to employment and enrollment status in April 1997, by selected student characteristics

	Employment and enrollment status in April 1997			
Selected student characteristics	Employed and not enrolled	Enrolled and employed	Enrolled and not employed	Not employed and not enrolled
Total	**76.3**	**13.0**	**4.7**	**6.1**
Sex				
Male	78.5	12.1	5.4	4.1
Female	74.4	13.8	4.1	7.7
Race–ethnicity				
White	76.8	13.1	4.3	5.8
Black	79.4	11.3	4.6	4.7
Hispanic	70.5	15.0	6.0	8.5
Asian/Pacific Islander	69.7	11.9	10.0	8.4
American Indian/Alaskan Native	76.4	6.5	6.2	10.9
Marital status in April 1997				
Never married	74.5	14.1	6.6	4.9
Married/cohabit as married	77.6	12.1	3.0	7.3
Divorced/separated/widowed	78.1	13.3	4.3	4.3
Number of children				
No children	76.0	13.8	5.7	4.5
One	79.0	9.6	2.6	8.9
Two or more children	74.6	12.2	1.0	12.2
Baccalaureate degree major				
Professional fields	80.2	12.0	2.4	5.4
Arts and sciences	68.6	15.1	9.1	7.2
Other	79.9	11.9	2.4	5.9
Baccalaureate degree major				
Business and management	85.8	7.4	1.8	4.9
Education	71.0	20.1	2.3	6.7
Engineering	80.0	14.1	3.6	2.3
Health professions	79.2	9.8	4.2	6.8
Public affairs/social services	80.4	12.4	0.7	6.5
Biological sciences	50.7	16.6	25.4	7.3
Mathematics and other sciences	74.5	13.1	7.7	4.7
Social sciences	71.1	16.7	6.1	6.2
History	72.8	11.8	11.1	4.3
Humanities	71.7	13.6	5.2	9.5
Psychology	63.9	18.2	8.4	9.5
Other	79.9	11.9	2.4	5.9

NOTE: Details may not add to 100.0 due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 Baccalaureate and Beyond Longitudinal Study, Second Follow-up (B&B:93/97), Data Analysis System.

Advanced Placement (AP) Examinations

The Advanced Placement (AP) examinations are offered to high school students annually to give them an opportunity to demonstrate college-level achievement. The AP program is open to all students. However, it is advised that only students who have studied beyond the normal secondary school level take these examinations. High school students take the examinations voluntarily; however, several states have legislation that supports and encourages participation in the AP program.

It should be noted that while the AP program is open to all students, not all schools participate. This means that schools may not offer courses to prepare students for the AP examinations or administer them. If students wish, they may take AP examinations at a school other than the one they attend if the school attended does not administer AP examinations. However, whether a school offers AP courses and examinations will affect the likelihood of whether a student participates in the AP program. Students who attend schools that offer AP courses and examinations are probably more likely to take AP examinations than students who attend schools that do not participate in the AP program.

Data used in the denominators for this analysis were taken from the October Current Population Survey (CPS) and should not be compared with data from *The National Education Goals Report*. In this analysis, the number of 11th- and 12th-graders who took AP examinations and the number of examinations taken by these students, as reported by The College Board, were compared to populations of 12th-graders as defined by the October CPS. This comparison provides an estimate of the average number of students who participate in the AP program for a single cohort and the average number of AP examinations a single cohort takes because students rarely take any given AP examination (e.g., biology) in both the 11th and 12th grades.

Enrollment figures from the CPS include both public and private school data, which are somewhat different from the data shown in *The National Education Goals Report*. Enrollment figures from *The National Education Goals Report* are based on the Common Core of Data, which does not include data from private schools, but produces private school enrollment data by multiplying the public school figures by a private school enrollment adjustment factor. As a result, data in this analysis are not directly comparable to data found in the *Goals* report.

Subject definitions

The following are the specific subjects that comprise the AP examination subject areas presented in this analysis:

Social Studies: U.S. History, European History, U.S. Government and Politics, Comparative Government and Politics, and Psychology;

English: English Language and Composition, and English Literature and Composition;

Foreign Language: French Language, French Literature, German Language, Latin/Vergil, Latin Literature, Spanish Language, and Spanish Literature;

Calculus: Calculus AB and Calculus BC;

Computer Science: Computer Science A and Computer Science AB;

Science: Biology, Chemistry, Physics B, Physics C (mechanical), and Physics C (electricity and magnetism).

Examinations

Most of the AP examinations contain multiple choice and free-response sections. The examinations are graded based on scores from both types of responses. The program's examinations are criterion- rather than normed-referenced, with cut scores established at four different points along these scales to designate a grade of 5,.4, 3, 2, or 1 (grade of 5: extremely well qualified; grade of 4: well qualified; grade of 3: qualified; grade of 2: possibly qualified; and grade of 1: no recommendation). The grades are determined by the chief readers who rely on their subject matter expertise, statistical equating data, and data from comparability studies. Cut scores frequently vary from year to year for each examination, reflecting changes in the level of examination difficulty. Therefore, The College Board does not recommend using grade data for trend analysis. Grades of 3 and above are usually accepted for college credit and advanced placement at participating colleges and universities, although credit varies among institutions.

SOURCE: The College Board, *A Guide to the Advanced Placement Program*, 1992.

Table 16-1 Percentage distibution of 8th-grade students[1] according to frequency with which they reported having a quiz or test in their mathematics lessons, by frequency and country: 1995

Country	Once in a while or never	Pretty often	Almost always
Australia[2]	46	38	16
Austria[2]	77	15	9
Belgium (Flemish)	7	71	22
Belgium (French)[2]	27	49	24
Canada	27	52	20
Colombia[2]	22	35	43
Cyprus	22	63	15
Czech Republic	72	24	5
Denmark[2]	69	21	10
England[2]	50	40	10
France	30	51	20
Germany[2]	66	22	12
Greece[2]	44	40	16
Hong Kong	21	43	36
Hungary	80	15	5
Iceland	70	24	6
Iran, Islamic Republic	45	28	27
Ireland	51	36	14
Israel[2]	43	39	18
Japan	59	30	11
Korea	74	19	7
Kuwait[2]	29	29	42
Latvia (Latvian-speaking schools)[2]	80	17	3
Lithuania[2]	30	59	11
Netherlands[2]	45	43	12
New Zealand	45	35	20
Norway	66	31	3
Portugal	49	28	23
Romania[2]	30	36	34
Russian Federation	23	53	24
Scotland[2]	63	28	9
Singapore	27	55	18
Slovak Republic	51	42	7
Slovenia[2]	36	44	20
Spain	25	37	39
Sweden	43	49	7
Switzerland	41	45	14
Thailand[2]	41	28	31
United States	15	47	38

[1] Eighth grade in most nations.

[2] Country did not satisfy one or more sampling or other guidelines. See the supplemental note to *Indicator 3* for further explanation.

NOTE: Details may not add to 100 due to rounding.

SOURCE: International Association for the Evaluation of Educational Achievement, TIMSS International Study Center, *Mathematics Achievement in the Middle School Years*, 1996.

Table 16-2 Percentage distribution of 8th-grade students[1] according to teacher reports of the use of various pieces of written information[2] as their main source for deciding which topics to teach and how to present in mathematics, by country: 1995

Country	Deciding which topics to teach			Deciding how to present a topic		
	Curriculum guide	Textbook	Examination specifications	Curriculum guide	Textbook	Examination specifications
Australia[3]	[4]91	[4]9	—	[4]13	[4]87	—
Austria[3]	[4]75	[4]25	[4]0	[4]28	[4]72	[4]0
Belgium (Flemish)	92	8	—	8	92	—
Belgium (French)[3]	[5]87	[5]13	—	[5]2	[5]98	—
Canada	—	—	—	—	—	—
Colombia[3]	[4]63	[4]35	[4]3	[4]43	[4]56	[4]1
Cyprus	[4]67	[4]33	[4]0	[4]17	[4]83	[4]0
Czech Republic	79	21	—	9	91	—
Denmark[3]	—	—	—	—	—	—
England[3]	—	—	—	—	—	—
France	89	10	1	[4]13	[4]87	[4]0
Germany[3]	[5]80	[5]20	—	[5]25	[5]75	—
Greece[3]	53	47	—	5	95	—
Hong Kong	61	30	9	15	85	0
Hungary	79	19	2	18	81	1
Iceland	[5]63	[5]36	[5]1	[5]12	[5]87	[5]1
Iran, Islamic Republic	[4]64	[4]31	[4]5	[4]55	[4]36	[4]9
Ireland	[4]65	[4]35	—	[4]14	[4]86	—
Israel[3]	[4]91	[4]5	[4]5	[4]28	[4]69	[4]3
Japan	24	74	1	11	87	2
Korea	22	76	2	22	74	4
Kuwait[3]	—	—	—	—	—	—
Latvia (Latvian-speaking schools)[3]	[4]81	[4]16	[4]3	[4]17	[4]80	[4]4
Lithuania[3]	[4]88	[4]10	[4]2	[4]6	[4]93	[4]1
Netherlands[3]	2	87	12	1	94	5
New Zealand	91	5	4	47	53	0
Norway	[4]53	[4]47	—	[5]9	[5]91	—
Portugal	86	14	—	64	36	—
Romania[3]	94	3	3	28	67	5
Russian Federation	76	13	11	7	86	6
Scotland[3]	[5]79	[5]10	[5]11	[5]28	[5]68	[5]4
Singapore	82	18	0	10	89	1
Slovak Republic	83	17	0	16	83	1
Slovenia[3]	[4]87	[4]9	[4]4	[4]27	[4]71	[4]2
Spain	—	—	—	—	—	—
Sweden	[4]46	[4]54	—	[4]6	[4]94	—
Switzerland	[5]69	[5]30	[5]1	([6])	([6])	([6])
Thailand[3]	[5]44	[5]50	[5]6	[4]17	[4]83	[4]0
United States	[5]64	[5]30	[5]6	[5]9	[5]88	[5]3

— Not available.

[1] Eighth grade in most nations.

[2] Curriculum guides include national, regional, and school curriculum guides; textbooks include teacher and student editions, as well as other resource books; and examination specifications include national and regional levels.

[3] Country did not satisfy one or more sampling or other guidelines. See the supplemental note to *Indicator 3* for further explanation.

[4] Teacher response data available for 70–84 percent of the students.

[5] Teacher response data available for 50–69 percent of the students.

[6] Teacher response data available for less than 50 percent of students.

NOTE: Details may not add to 100 due to rounding.

SOURCE: International Association for the Evaluation of Educational Achievement, TIMSS International Study Center, *Mathematics Achievement in the Middle School Years*, 1996.

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Table 17-2 Percentage of public schools with various Internet capabilities and members of the school community with access to Internet capabilities, by type of Internet capability: Fall 1996

		Member of the school community with access to Internet capability[2]		
Internet capabilities	Available[1]	Teachers	Administrative staff	Students
E-mail	90	88	92	35
News groups	57	91	85	43
Resource location services (e.g., Gopher, Archie, Veronica, etc.)	67	93	87	64
World Wide Web access (e.g., browsers such as Netscape, MOSAIC)	89	94	86	74

[1] Based on the number of schools with Internet access (65 percent of public schools).

[2] Based on the number of schools with the corresponding Internet capability.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Advanced Telecommunications in U.S. Public Elementary and Secondary Schools, Fall 1996*, 1997.

Table 17-3 Percentage of private schools with various Internet capabilities and members of the school community with access to Internet capabilities, by type of Internet capability: Fall 1995

		Member of the school community with access to Internet capability[2]		
Internet capabilities	Available[1]	Teachers	Administrative staff	Students
E-mail	94	74	91	39
News groups	69	79	78	55
Resource location services (e.g., Gopher, Archie, Veronica, etc.)	67	85	79	68
World Wide Web access (e.g., browsers such as Netscape, MOSAIC)	72	87	79	70

[1] Based on the number of schools with Internet access (25 percent of private schools).

[2] Based on the number of schools with the corresponding Internet capability.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Advanced Telecommunications in U.S. Private Schools, K-12, Fall 1995*, 1997.

Table 18-1 Percentage of students who used a computer at home, by purpose, current grade level, race–ethnicity, and family income: 1997

Current grade level, race–ethnicity, and family income*	Word processing	E-mail	Internet	School assignments	Databases	Graphics/ design
Total (Grades 1–12)	**33.9**	**13.0**	**17.5**	**49.1**	**1.6**	**14.7**
		Grades 1–6				
Total	**19.8**	**6.8**	**10.2**	**34.0**	**0.0**	**12.0**
Race–ethnicity						
White	21.7	8.0	11.5	35.6	0.0	13.5
Black	11.2	2.5	4.2	27.4	0.0	6.1
Hispanic	15.2	2.2	7.3	28.4	0.0	7.6
Family income						
Low income	12.5	4.4	4.7	21.7	0.0	7.3
Middle income	15.5	4.8	7.6	29.7	0.0	10.3
High income	27.5	10.1	15.1	42.6	0.0	15.3
		Grades 7–12				
Total	**47.5**	**19.0**	**24.6**	**63.9**	**3.1**	**17.4**
Race–ethnicity						
White	50.1	20.9	26.4	65.6	3.3	18.8
Black	31.7	7.1	12.8	50.7	1.1	9.2
Hispanic	37.6	9.0	16.6	53.0	2.1	11.6
Family income						
Low income	26.9	8.0	10.2	44.6	0.8	9.7
Middle income	41.4	15.1	19.2	60.7	3.1	16.4
High income	58.6	25.9	33.8	70.8	3.5	19.7

* Low income is the bottom 20 percent of all family incomes; high income is the top 20 percent of all family incomes; and middle income is the 60 percent in between. See the supplemental note to *Indicator 53* for further discussion.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Table 20-1 Percentage of students with disabilities ages 6–21* according to the educational environment in which they are educated, by type of disability: Academic years ending 1986–96

Type of disability	Academic year ending 1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	Percentage point change
Regular class												
All disabilities	25.5	26.4	28.9	30.5	31.5	32.8	34.9	39.8	43.4	44.5	45.4	19.9
Specific learning disabilities	15.4	15.9	17.6	19.6	20.7	22.5	24.7	34.8	39.3	41.1	42.4	27.0
Traumatic brain injury	—	—	—	—	—	—	7.9	16.4	22.3	26.0	28.5	20.6
Speech or language impairments	68.6	70.1	74.8	75.6	76.8	78.9	85.5	81.8	87.5	87.3	88.6	20.0
Hearing impairments	20.0	21.6	24.4	26.9	27.0	26.9	27.0	29.5	30.6	35.0	36.2	16.2
Other health impairments	27.4	30.5	30.6	29.9	31.2	30.2	35.3	40.0	40.1	42.5	43.3	15.9
Visual impairments	32.8	32.7	37.7	39.8	39.3	42.1	39.6	45.5	45.2	45.9	47.7	14.9
Serious emotional disturbance	9.1	10.2	12.6	14.1	14.9	16.8	15.9	19.6	20.5	22.0	23.5	14.4
Orthopedic impairments	28.7	24.2	27.8	29.3	29.6	29.6	32.4	35.1	37.4	39.1	40.8	12.1
Mental retardation	2.9	3.3	5.7	5.9	6.8	7.4	5.1	7.1	8.6	9.7	10.3	7.4
Autism	—	—	—	—	—	—	4.7	9.0	9.6	10.7	12.0	7.3
Multiple disabilities	2.4	4.4	6.4	7.0	5.9	6.6	6.2	7.6	9.1	9.0	9.5	7.1
Deaf-blindness	7.0	6.0	8.8	11.6	8.0	10.5	5.8	12.3	7.7	9.3	10.8	3.8
Resource room												
All disabilities	43.1	42.7	40.0	39.0	37.6	36.5	36.3	31.7	29.5	28.8	28.7	-14.4
Specific learning disabilities	62.4	60.9	59.1	57.9	56.1	53.7	54.2	43.9	41.0	39.6	39.4	-23.0
Traumatic brain injury	—	—	—	—	—	—	9.0	19.8	23.5	24.1	24.9	15.9
Speech or language impairments	26.0	23.8	19.7	19.0	17.7	13.9	9.1	10.7	7.6	7.8	6.5	-19.5
Hearing impairments	22.4	25.1	20.9	21.0	18.2	19.7	20.5	19.7	20.0	19.3	18.9	-3.5
Other health impairments	19.8	28.4	20.8	20.3	22.3	27.7	27.6	27.4	27.0	29.0	30.2	10.4
Visual impairments	25.1	29.3	25.6	25.4	23.7	23.2	21.2	21.1	21.3	21.1	20.6	-4.5
Serious emotional disturbance	34.9	35.7	32.9	30.0	28.5	29.2	27.8	26.7	25.8	24.1	23.7	-11.2
Orthopedic impairments	17.6	23.1	18.0	18.6	18.9	22.2	21.0	20.0	20.7	20.6	20.8	3.2
Mental retardation	26.2	27.0	24.0	22.4	20.1	23.0	25.4	26.8	26.2	27.1	28.6	2.4
Autism	—	—	—	—	—	—	6.9	9.6	8.1	9.3	10.7	3.8
Multiple disabilities	17.6	19.5	13.3	14.1	14.3	17.2	18.1	19.1	19.8	11.9	14.9	-2.7
Deaf-blindness	19.0	20.6	7.2	5.3	16.3	6.4	6.2	9.7	8.0	8.7	9.9	-9.1

Table 20-1 Percentage of students with disabilities ages 6–21* according to the educational environment in which they are educated, by type of disability: Academic years ending 1986–96—Continued

Type of disability	Academic year ending 1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	Percentage point change
Separate class												
All disabilities	24.4	24.9	24.7	24.3	24.9	25.1	23.5	23.4	22.7	22.4	21.7	-2.7
Specific learning disabilities	20.7	21.1	21.7	20.9	21.7	22.4	20.0	20.1	18.8	18.4	17.4	-3.3
Traumatic brain injury	—	—	—	—	—	—	23.7	28.4	30.2	30.4	30.6	6.9
Speech or language impairments	3.7	4.1	3.8	3.8	3.8	5.7	3.9	6.0	4.5	4.6	4.5	0.8
Hearing impairments	32.6	33.1	35.2	33.5	31.7	32.7	31.2	28.1	30.6	28.6	26.8	-5.8
Other health impairments	24.5	19.8	18.7	19.6	24.6	26.2	21.4	20.6	21.3	18.5	18.4	-6.1
Visual impairments	17.9	21.3	20.8	20.3	21.1	19.9	19.6	18.0	18.3	17.2	17.1	-0.8
Serious emotional disturbance	36.2	36.9	34.6	35.8	37.1	35.8	36.9	35.2	35.3	35.2	34.3	-1.9
Orthopedic impairments	29.7	32.9	31.7	33.5	34.7	33.0	34.3	34.1	33.3	31.6	30.5	0.8
Mental retardation	56.6	58.0	57.6	58.9	61.1	58.3	59.2	56.8	57.0	55.8	54.2	-2.4
Autism	—	—	—	—	—	—	48.5	50.0	54.5	55.0	53.8	5.3
Multiple disabilities	43.2	47.6	45.9	46.2	43.7	42.8	47.1	44.6	44.1	51.3	48.8	5.6
Deaf-blindness	21.6	36.4	35.0	29.9	29.9	32.3	36.3	31.4	34.6	36.2	40.2	18.6
Separate facilities												
All disabilities	6.9	6.1	6.4	6.2	6.1	5.6	5.3	5.1	4.4	4.3	4.3	-2.6
Specific learning disabilities	1.5	2.1	1.6	1.5	1.5	1.4	1.1	1.2	0.8	0.9	0.9	-0.6
Traumatic brain injury	—	—	—	—	—	—	59.5	35.4	23.9	19.5	16.0	-43.5
Speech or language impairments	1.7	2.0	1.6	1.6	1.7	1.6	1.5	1.6	0.4	0.4	0.4	-1.3
Hearing impairments	25.0	20.3	19.5	18.6	23.1	20.7	21.3	22.7	18.9	17.1	18.2	-6.8
Other health impairments	28.4	21.3	29.9	30.1	21.9	15.9	15.6	12.0	11.6	10.0	8.2	-20.2
Visual impairments	24.2	16.7	15.9	14.5	15.9	14.8	19.6	15.5	15.3	15.8	14.6	-9.6
Serious emotional disturbance	19.8	17.2	20.0	20.1	19.5	18.3	19.5	18.5	18.4	18.7	18.6	-1.2
Orthopedic impairments	24.0	19.8	22.5	18.7	16.8	15.2	12.3	10.8	8.7	8.7	8.0	-16.0
Mental retardation	14.2	11.7	12.8	12.8	12.1	11.4	10.3	9.3	8.3	7.4	7.0	-7.2
Autism	—	—	—	—	—	—	39.9	31.3	27.8	25.0	23.5	-16.4
Multiple disabilities	36.7	28.5	34.4	32.7	36.1	33.3	28.6	28.8	27.1	27.8	26.8	-9.9
Deaf-blindness	52.4	37.1	48.9	53.2	45.9	50.8	51.6	46.7	49.7	45.8	39.1	-13.3

— Not available

* Based on the number of students served under Part B of the Individuals with Disabilities Education Act (IDEA), in the United States and outlying areas.

NOTE: Disability types are listed in order of greatest to least increase in being served in a regular classroom. See the supplemental note to this indicator for definitions of the different educational environments and disability types.

SOURCE: U.S. Department of Education, Office of Special Education and Rehabilitative Services, *Annual Report to Congress on the Implementation of the Individuals with Disabilities Education Act*, 1988–1998.

Educational environments and types of disabilities

The educational environments described in *Indicator 20* are defined by the U.S. Department of Education, Office of Special Education and Rehabilitative Services, as follows:

- *Regular class*: A student with a disability is educated in a regular class if he or she is removed from regular classes to receive special education and related services for less than 21 percent of the school day.
- *Resource room*: A student with a disability is educated in a resource room if he or she receives special education and related services outside the regular class for 21 to 60 percent of the school day.
- *Separate class*: A student with a disability is educated in a separate class if he or she receives special education and related services outside the regular class for more than 60 percent of the school day.
- *Separate facilities*: A student with a disability is educated in a separate facility if he or she does not attend school with his or her nondisabled peers; instead, he or she is educated either in a separate day school, a residential facility, or a homebound/hospital setting.

The 12 disability types presented in *Indicator 20* are classified according to federal law, under the Individuals with Disabilities Education Act, and are defined below.

- *Autism*: a developmental disability significantly affecting verbal and nonverbal communication and social interaction, generally evident before age 3, that adversely affects a child's educational performance. Other characteristics often associated with autism are engagement in repetitive activities and stereotyped movements, resistance to environmental change or change in daily routines, and unusual responses to sensory experiences.
- *Deaf-blindness*: concomitant hearing and visual impairments, the combination of which causes such severe communication and other developmental and educational problems that they cannot be accommodated in special education programs solely for children with deafness or children with blindness.
- *Hearing impairments*: an impairment in hearing, whether permanent or fluctuating, that adversely affects a child's educational performance, in the most severe case because the child is impaired in processing linguistic information through hearing.
- *Mental retardation*: significantly subaverage general intellectual functioning existing concurrently with deficits in adaptive behavior and manifested during the developmental period that adversely affects a child's educational performance.
- *Multiple disabilities*: concomitant impairments (such as mental retardation-blindness, mental retardation-orthopedic impairment, etc.), the combination of which causes such severe educational problems that they cannot be accommodated in special education programs solely for one of the impairments. The term does not include deaf-blindness.
- *Orthopedic impairments*: a severe orthopedic impairment that adversely affects a child's educational performance. The term includes impairments caused by congenital anomaly (e.g., clubfoot, absence of some member, etc.), impairments caused by disease (e.g., poliomyelitis, bone tuberculosis, etc.), and impairments from other causes (e.g., cerebral palsy, amputations, and fractures or burns that cause contractures).
- *Other health impairments*: having limited strength, vitality, or alertness, due to chronic or acute health problems such as a heart condition, tuberculosis, rheumatic fever, nephritis, asthma, sickle cell anemia, hemophilia, epilepsy, lead poisoning, leukemia, or diabetes that adversely affects a child's educational performance.
- *Serious emotional disturbance*: a condition exhibiting one or more of the following characteristics over a long period of time and to a marked degree that adversely affects a child's educational performance:

  (a) an inability to learn that cannot be explained by intellectual, sensory, or health factors;

  (b) an inability to build or maintain satisfactory interpersonal relationships with peers and teachers;

(c) inappropriate types of behavior or feelings under normal circumstances;

(d) a general pervasive mood of unhappiness or depression; or

(e) a tendency to develop physical symptoms or fears associated with personal or school problems.

The term includes schizophrenia. The term does not apply to children who are socially maladjusted, unless it is determined that they have a serious emotional disturbance.

- *Specific learning disabilities*: a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, that may manifest itself in an imperfect ability to listen, think, speak, read, write, spell, or to do mathematical calculations. The term includes such conditions as perceptual disabilities, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia. The term does not apply to children who have learning problems that are primarily the result of visual, hearing, or motor disabilities, of mental retardation, of emotional disturbance, or of environmental, cultural, or economic disadvantage.

- *Speech or language impairments*: a communication disorder such as stuttering, impaired articulation, a language impairment, or a voice impairment that adversely affects a child's educational performance.

- *Traumatic brain injury*: an acquired injury to the brain caused by an external physical force, resulting in total or partial functional disability or psychosocial impairment, or both, that adversely affects a child's educational performance. The term applies to open or closed head injuries resulting in impairments in one or more areas, such as cognition; language; memory; attention; reasoning; abstract thinking; judgment; problem-solving; sensory, perceptual, and motor abilities; psychosocial behavior; physical functions; information processing; and speech. The term does not apply to brain injuries that are congenital or degenerative, or brain injuries induced by birth trauma.

- *Visual impairments*: an impairment in vision that, even with correction, adversely affects a child's educational performance. The term includes both partial sight and blindness.

SOURCE: U.S. Department of Education, Office of Special Education and Rehabilitative Services, *Twentieth Annual Report to Congress on the Implementation of the Individuals with Disabilities Education Act (IDEA)*, 1998. *Code of Federal Regulations*, Title 34, Section 300.7, 1995.

Table 21-1 Average reading proficiency of students who read for fun, by frequency and age: Selected years 1984–96

	Age 9						Age 13						Age 17					
Frequency	1984	1988	1990	1992	1994	1996	1984	1988	1990	1992	1994	1996	1984	1988	1990	1992	1994	1996
Almost every day	214	213	215	215	215	213	264	266	269	269	272	270	297	296	304	304	302	301
1–2 times a week	212	212	211	212	214	212	255	260	255	260	255	259	290	284	294	291	286	292
1–2 times a month	204	201	210	204	213	210	255	257	251	257	255	260	290	285	288	287	286	290
Few times a year	197	200	198	197	193	206	252	248	245	250	252	254	280	274	280	282	281	285
Never/hardly ever	198	198	192	189	193	199	239	241	247	246	237	238	269	277	266	268	258	269

NOTE: The range of the reading scale is from 0 to 500. See supplemental table 4-1 for detailed explanations of levels. In 1996, the average scores for 9-, 13-, and 17-year-olds were 212, 259, and 287, respectively.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *Almanac: Reading 1984 to 1996, Writing 1984 to 1996*, 1998.

Table 21-2 Percentage distribution of students according to the type of material most recently having read at school and on their own, by age: Selected years 1984–96

	Age 9						Age 13						Age 17					
	1984	1988	1990	1992	1994	1996	1984	1988	1990	1992	1994	1996	1984	1988	1990	1992	1994	1996
At school																		
Newspaper or magazine	4.3	4.5	4.4	5.3	5.5	5.3	4.8	4.0	5.6	5.2	5.2	5.4	6.4	6.1	6.2	6.4	6.4	5.9
Play	1.9	1.8	2.5	1.8	1.5	1.9	1.9	2.7	2.4	2.4	2.4	2.6	5.9	8.8	6.3	6.7	6.8	6.7
Poem	2.9	2.6	2.9	3.5	3.7	2.7	1.2	1.4	1.2	1.6	1.1	1.7	4.1	4.7	4.4	4.6	5.4	4.8
Story/novel	16.9	18.1	19.6	23.7	27.5	28.7	22.5	27.9	26.6	28.7	32.2	34.2	39.7	40.1	41.1	42.6	41.1	41.3
Science book	17.3	18.8	16.3	16.8	16.5	15.4	21.3	20.2	22.3	18.4	18.7	17.1	11.5	12.1	12.3	12.6	12.6	12.7
Social studies book	20.5	22.8	20.3	18.1	14.8	16.0	25.6	24.2	22.1	22.3	18.8	17.8	15.7	13.1	14.5	14.0	13.4	14.2
Math book	17.5	15.3	16.6	15.2	14.6	14.7	16.2	14.8	15.2	16.3	16.8	16.1	11.1	11.1	11.5	10.4	10.7	10.6
Workbook	18.8	16.2	17.5	15.6	16.0	15.2	6.5	4.9	4.7	5.0	4.7	5.2	5.6	4.0	3.8	2.8	3.5	3.8
On own																		
Newspaper	8.9	7.0	5.7	6.1	5.5	5.2	16.3	12.7	11.8	12.3	11.5	8.4	25.7	23.5	23.1	24.9	20.7	21.3
Magazine	17.4	15.4	17.4	17.0	19.9	17.0	31.1	36.2	37.1	35.2	35.6	39.5	36.6	39.9	38.4	38.1	38.9	41.0
Play	3.2	2.8	2.6	2.4	1.6	1.2	0.8	0.9	0.9	1.2	0.8	1.2	0.8	0.7	0.6	0.8	0.8	0.7
Poem	5.8	4.3	5.5	6.4	5.1	4.4	1.3	1.8	2.0	2.0	1.5	2.7	1.7	2.2	2.3	2.7	2.5	2.7
Story/novel	36.5	37.6	37.2	42.9	39.4	42.6	39.0	36.9	36.9	40.8	40.5	38.0	29.3	27.3	28.4	26.7	30.3	27.1
Science book	3.8	4.8	3.8	3.7	3.3	3.1	1.6	1.2	1.3	1.3	1.4	1.3	1.1	0.8	1.0	1.0	0.9	0.6
Social studies book	3.3	3.1	3.2	2.8	2.2	2.6	1.5	1.5	1.4	1.0	1.1	0.9	0.5	0.5	0.4	0.8	0.3	0.6
Math book	3.6	3.5	2.9	3.2	2.7	2.2	1.3	0.7	0.9	0.5	0.7	0.7	0.5	0.5	0.7	0.7	0.3	0.7
Workbook	4.4	3.4	2.8	2.9	3.4	3.3	0.7	0.5	0.3	0.4	0.4	0.3	0.2	0.2	0.1	0.2	0.3	0.2
Something else	13.0	18.0	19.0	12.5	16.9	18.3	6.4	7.6	7.3	5.4	6.5	6.9	3.6	4.5	5.1	4.2	4.9	5.2

NOTE: Details may not add to 100.0 due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *Almanac: Reading 1984 to 1996, Writing 1984 to 1996*, 1998.

Table 22-1 Percentage of public school districts with various requirements when considering teacher applicants, by type of requirements, percentage of students eligible for free or reduced-price lunch, and percentage of minority students enrolled: School year 1993–94

	Requirements in teacher hiring							
District characteristics	Full standard state certification for field to be taught	Graduation from state-approved teacher education program	Emergency or temporary state certification	College major or minor in field to be taught	Passage of state test of basic skills	Passage of state test of subject knowledge	Passage of the National Teachers Examination (NTE)*	Passage of district test of basic skills or subject knowledge
Total	**83.3**	**71.9**	**67.4**	**66.9**	**49.0**	**39.3**	**30.8**	**2.0**
Percentage of students eligible for free or reduced-price lunch								
0–5	81.6	61.5	61.1	58.0	44.1	36.9	33.2	1.9
6–20	88.9	69.8	66.0	67.8	48.4	36.8	27.4	0.8
21–40	83.4	75.4	66.9	68.2	47.5	40.2	33.6	2.8
41 or more	79.0	72.6	70.5	66.7	51.8	40.7	30.2	1.6
Percentage of minority students enrolled								
Less than 5	87.9	74.9	63.9	74.0	40.3	31.9	29.2	2.4
5–19	82.1	72.9	67.1	64.4	47.7	40.7	33.5	1.0
20–49	77.2	66.8	71.7	59.0	61.1	50.5	29.3	1.7
50 or more	75.9	65.2	76.7	54.7	68.4	48.8	33.9	2.6

* In 1993–94 only, districts indicated whether they required the NTE Core Battery and/or the Professional Specialty Area. Districts were counted as requiring the NTE if they checked either response option. In other years, districts indicated only whether they required the NTE Core Battery.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1993–94 (Teacher Demand and Shortage Questionnaire for Public School Districts).

Table 22-2 Percentage of public school districts with various requirements when considering teacher applicants, by type of requirements, region, and state: 1993–94

	Requirements in teacher hiring							
State	Full standard state certification for field to be taught	Graduation from state-approved teacher education program	Emergency or temporary state certification	College major or minor in field to be taught	Passage of state test of basic skills	Passage of state test of subject knowledge	Passage of the National Teachers Examination (NTE)*	Passage of district test of basic skills or subject knowledge
Northeast	**93.0**	**56.7**	**61.3**	**63.7**	**39.0**	**36.0**	**50.0**	**2.3**
Connecticut	95.2	72.0	58.7	56.8	84.5	81.7	11.9	2.1
Maine	87.6	59.2	69.3	67.2	40.6	16.4	65.2	0.5
Massachusetts	89.9	41.6	68.0	59.7	4.4	6.1	1.3	0.7
New Hampshire	85.0	55.4	78.9	70.8	7.1	4.3	0.0	0.0
New Jersey	88.4	37.4	53.0	44.0	28.9	31.8	77.6	1.5
New York	95.4	61.8	60.3	66.1	49.3	44.5	81.7	1.5
Pennsylvania	97.6	73.6	58.7	81.7	68.2	66.2	50.1	6.0
Rhode Island	100.0	67.6	54.1	70.3	18.9	16.2	70.3	2.7
Vermont	98.4	55.3	64.8	63.7	1.3	1.3	0.9	2.8
Midwest	**87.5**	**81.3**	**63.8**	**77.3**	**41.8**	**34.4**	**17.0**	**2.1**
Illinois	88.3	72.4	59.2	69.2	86.5	76.3	7.8	2.9
Indiana	88.2	80.5	68.9	80.6	66.8	62.8	72.8	5.2
Iowa	77.5	75.5	80.9	64.6	0.0	0.0	0.3	0.0
Kansas	89.7	80.6	55.2	75.4	76.7	56.8	53.5	2.7
Michigan	94.6	89.8	66.8	90.0	48.5	47.0	14.2	1.8
Minnesota	92.3	80.8	65.6	90.5	43.5	29.8	4.7	4.2
Missouri	64.6	86.9	82.6	68.7	15.8	13.7	14.1	0.7
Nebraska	89.3	83.7	55.7	69.0	51.6	28.8	11.9	3.8
North Dakota	95.7	81.7	33.3	96.4	1.6	1.5	2.4	1.0
Ohio	97.0	84.9	57.3	78.1	28.0	26.2	35.6	1.0
South Dakota	89.2	80.5	61.1	70.2	0.0	0.0	0.8	0.0
Wisconsin	84.6	80.0	72.6	90.0	10.2	5.6	0.0	0.4
South	**70.1**	**73.6**	**78.2**	**62.0**	**63.0**	**63.0**	**38.1**	**1.5**
Alabama	87.0	89.8	63.3	88.2	11.5	7.1	4.6	2.2
Arkansas	63.5	84.7	64.1	62.8	60.6	57.9	93.8	2.5
Delaware	—	—	—	—	—	—	—	—
District of Columbia	—	—	—	—	—	—	—	—
Florida	58.0	36.3	75.8	27.1	69.4	72.5	1.5	2.9
Georgia	46.0	42.3	85.9	46.8	51.8	87.9	0.8	0.6
Kentucky	93.5	95.2	54.8	92.6	34.2	37.2	79.1	0.0
Louisiana	78.7	78.2	84.3	60.0	17.0	11.7	91.6	0.0
Maryland	—	—	—	—	—	—	—	—
Mississippi	91.2	76.3	86.2	70.3	27.3	26.8	100.0	6.6
North Carolina	64.3	58.1	74.2	67.4	20.6	21.4	96.8	1.9
Oklahoma	69.8	76.9	80.3	73.6	80.1	87.7	11.6	1.1
South Carolina	84.4	80.6	82.4	51.3	58.9	55.3	96.6	3.1
Tennessee	93.2	77.2	70.4	47.7	41.8	39.2	77.3	2.3
Texas	63.4	75.9	85.1	54.3	90.1	82.2	6.3	0.5
Virginia	71.3	40.3	84.1	52.1	22.0	22.0	86.8	3.0
West Virginia	81.3	87.1	77.3	68.3	77.7	79.5	13.1	1.8

Table 22-2 Percentage of public school districts with various requirements when considering teacher applicants, by type of requirement, region, and state: 1993–94—Continued

	Requirements in teacher hiring							
State	Full standard state certification for field to be taught	Graduation from state-approved teacher education program	Emergency or temporary state certification	College major or minor in field to be taught	Passage of state test of basic skills	Passage of state test of subject knowledge	Passage of the National Teachers Examination (NTE)*	Passage of district test of basic skills or subject knowledge
West	**79.8**	**67.9**	**68.8**	**55.7**	**57.7**	**25.6**	**28.5**	**2.1**
Alaska	66.4	71.0	45.4	22.1	0.0	0.0	0.0	0.0
Arizona	85.3	59.3	69.6	64.9	76.7	40.6	6.3	1.0
California	78.0	63.0	82.2	44.8	89.4	35.8	19.5	2.8
Colorado	77.2	55.7	68.3	69.7	86.7	29.3	1.5	0.0
Hawaii	—	—	—	—	—	—	—	—
Idaho	88.7	75.1	66.4	62.4	28.4	19.6	85.5	0.0
Montana	85.7	73.8	56.6	77.7	32.8	19.2	72.9	4.3
Nevada	—	—	—	—	—	—	—	—
New Mexico	74.8	85.4	76.1	71.0	47.2	27.7	84.6	2.8
Oregon	72.7	74.1	50.2	39.3	38.9	12.0	14.4	0.0
Utah	74.2	72.6	76.3	58.8	0.0	0.0	0.0	0.0
Washington	80.9	75.4	63.2	51.4	16.0	12.5	0.7	1.5
Wyoming	85.7	57.8	60.7	69.0	4.3	1.7	0.0	0.0

— Too few sample observations for a reliable estimate.

* In 1993–94 only, districts indicated whether they required the NTE Core Battery and/or the Professional Specialty Area. Districts were counted as requiring the NTE if they checked either response option. In other years, districts indicated only whether they required the NTE Core Battery.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1993–94 (Teacher Demand and Shortage Questionnaire for Public School Districts).

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Table 24-1 Percentage distribution of public school teachers according to frequency of participation in various collaborative activities in the past 12 months, by type of activity: 1998

Activity	Never	A few times a year	Once a month	2 to 3 times a month	At least once a week
Common planning period for team teachers	38	9	7	9	38
Being mentored by another teacher in a formal relationship	81	9	3	3	5
Individual or collaborative research on topic of interest professionally	47	25	8	9	10
Regularly scheduled collaboration with other teachers	19	19	17	18	27
Networking with teachers outside your school	39	37	11	7	6
Mentoring another teacher in a formal relationship	74	7	3	4	11

NOTE: Details may not add to 100 due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Fast Response Survey System, Teacher Survey on Professional Development and Training, 1998.

Table 26-1 Percentage of high school seniors who reported being victimized at school during the previous 12 months, by type of victimization and race–ethnicity: 1976–97

Year	Had something stolen		Property deliberately damaged		Injured with a weapon		Threatened with a weapon		Injured without a weapon		Threatened without a weapon	
	White	Black	White	Black	White	Black	White	Black	White	Black	White	Black
1976	38.9	35.9	25.1	30.1	5.0	7.8	11.4	16.3	13.2	14.3	21.2	24.2
1977	40.4	32.8	24.3	21.0	4.0	8.1	11.0	19.7	10.6	11.4	20.2	24.2
1978	38.8	32.4	25.7	21.2	3.9	7.2	11.2	13.3	11.5	14.4	20.4	17.5
1979	34.6	27.2	24.5	20.8	4.0	8.1	11.1	16.5	11.7	9.8	20.3	17.9
1980	34.3	33.1	25.3	21.9	3.5	9.9	9.5	17.8	10.3	14.9	19.0	20.0
1981	40.1	39.2	30.4	29.8	5.1	13.4	13.4	23.7	13.8	19.1	23.6	25.0
1982	37.9	42.0	25.6	25.4	4.2	4.5	11.1	15.9	11.8	11.7	21.3	19.5
1983	39.4	39.2	25.0	23.1	4.3	5.6	11.9	14.8	13.4	13.2	23.9	24.5
1984	38.4	35.3	24.3	21.8	3.2	6.0	10.9	16.7	12.1	13.3	23.0	24.4
1985	39.3	35.2	26.6	28.0	5.4	8.9	11.6	22.6	13.6	18.2	24.5	25.2
1986	41.1	36.3	25.7	24.5	4.9	6.9	12.6	15.7	14.5	12.8	25.7	22.7
1987	42.1	39.4	27.0	25.0	4.4	5.6	11.2	17.5	15.4	15.4	25.4	20.2
1988	41.4	46.6	27.4	25.8	3.9	9.0	11.3	22.2	13.5	16.6	24.3	27.7
1989	39.4	46.4	26.0	28.9	4.9	11.3	12.0	24.1	13.7	17.8	24.5	21.0
1990	41.6	42.2	28.9	26.1	4.6	10.0	12.0	16.0	13.6	10.0	26.1	21.7
1991	41.4	44.3	28.4	24.6	5.3	9.6	15.7	20.2	15.4	17.1	26.5	27.5
1992	36.2	44.2	25.7	26.3	4.5	5.2	12.3	19.4	12.7	13.8	25.5	20.5
1993	41.6	46.0	25.8	26.3	4.3	6.4	13.8	23.5	11.0	11.5	23.8	22.3
1994	39.5	46.5	28.3	21.5	4.0	8.1	14.8	18.1	11.5	11.5	24.7	22.1
1995	40.0	42.3	28.0	27.3	4.1	8.7	12.3	18.9	11.6	9.2	25.1	22.9
1996	37.6	43.2	25.2	26.0	3.7	9.8	12.3	17.1	11.2	15.7	21.9	21.9
1997	37.6	42.8	25.5	18.8	4.3	7.1	9.6	13.7	12.0	11.1	22.4	19.3

NOTE: Estimates were tabulated using restricted-use files. Response rates for this survey do not meet NCES standards.

SOURCE: University of Michigan, Survey Research Center, Institute for Social Research, Monitoring the Future Study.

Table 26-2 Percentage of high school seniors who reported being victimized at school during the previous 12 months, by type of victimization and population density: 1994–97

Year	Had something stolen	Property deliberately damaged	Injured with a weapon	Threatened with a weapon	Injured without a weapon	Threatened without a weapon
			Large metropolitan statistical area			
1994	42.7	25.8	4.3	15.2	13.1	23.1
1995	40.0	23.1	4.1	12.7	11.2	22.0
1996	35.8	27.3	5.9	14.4	12.3	20.5
1997	38.9	24.9	4.3	10.6	11.8	21.0
			Other metropolitan statistical area			
1994	36.8	27.1	5.5	14.6	11.2	24.3
1995	39.8	29.0	5.3	13.9	12.4	24.0
1996	40.7	25.8	4.1	12.5	12.4	21.6
1997	37.3	24.2	5.3	12.0	11.3	21.7
			Nonmetropolitan statistical area			
1994	41.2	28.7	3.9	15.6	11.1	23.4
1995	41.4	28.9	4.9	12.7	10.7	24.3
1996	36.0	25.2	5.4	13.5	10.4	22.4
1997	41.7	25.5	5.8	8.9	14.2	20.6

NOTE: Estimates were tabulated using restricted-use files. Response rates for this survey do not meet NCES standards.

SOURCE: University of Michigan, Survey Research Center, Institute for Social Research, Monitoring the Future Study.

Table 27-1 Percentage of high school seniors who reported using alcohol or drugs any time during the previous year, by type of drug: School years 1975–98

Type of drug	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986
Alcohol	84.8	85.7	87.0	87.7	88.1	87.9	87.0	86.8	87.3	86.0	85.6	84.5
Marijuana	40.0	44.5	47.6	50.2	50.8	48.8	46.1	44.3	42.3	40.0	40.6	38.8
Any illicit drug other than marijuana	26.2	25.4	26.0	27.1	28.2	30.4	34.0	30.1	28.4	28.0	27.4	25.9
Stimulants	16.2	15.8	16.3	17.1	18.3	20.8	26.0	20.3	17.9	17.7	15.8	13.4
LSD	7.2	6.4	5.5	6.3	6.6	6.5	6.5	6.1	5.4	4.7	4.4	4.5
Cocaine	5.6	6.0	7.2	9.0	12.0	12.3	12.4	11.5	11.4	11.6	13.1	12.7
Sedatives	11.7	10.7	10.8	9.9	9.9	10.3	10.5	9.1	7.9	6.6	5.8	5.2
Tranquilizers	10.6	10.3	10.8	9.9	9.6	8.7	8.0	7.0	6.9	6.1	6.1	5.8
Inhalants	—	3.0	3.7	4.1	5.4	4.6	4.1	4.5	4.3	5.1	5.7	6.1

Type of drug	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Alcohol	85.7	85.3	82.7	80.6	77.7	76.8	*72.7	*73.0	*73.7	*72.5	*74.8	*74.3
Marijuana	36.3	33.1	29.6	27.0	23.9	21.9	26.0	30.7	34.7	35.8	38.5	37.5
Any illicit drug other than marijuana	24.1	21.1	20.0	17.9	16.2	14.9	17.1	18.0	19.4	19.8	20.7	20.2
Stimulants	12.2	10.9	10.8	9.1	8.2	7.1	8.4	9.4	9.3	9.5	10.2	10.1
LSD	5.2	4.8	4.9	5.4	5.2	5.6	6.8	6.9	8.4	8.8	8.4	7.6
Cocaine	10.3	7.9	6.5	5.3	3.5	3.1	3.3	3.6	4.0	4.9	5.5	5.7
Sedatives	4.1	3.7	3.7	3.6	3.6	2.9	3.4	4.2	4.9	5.3	5.4	6.0
Tranquilizers	5.5	4.8	3.8	3.5	3.6	2.8	3.5	3.7	4.4	4.6	4.7	5.5
Inhalants	6.9	6.5	5.9	6.9	6.6	6.2	7.0	7.7	8.0	7.6	6.7	6.2

— Not available.

* In 1993, the questions regarding alcohol consumption changed; therefore, data for alcohol use from 1993 through 1998 may not be comparable to earlier years. For example, in 1993, the original wording produced an estimate of 76 percent for alcohol use. The new wording produced an estimate of 73 percent.

NOTE: Only drug use not under a doctor's orders is included. Estimates were tabulated using restricted-use files. Response rates for this survey do not meet NCES standards.

SOURCE: University of Michigan, Survey Research Center, Institute for Social Research, Monitoring the Future Study.

Table 27-2 Percentage of students who reported using alcohol or drugs any time during the previous 30 days, by type of drug and grade: School years 1991–98

Type of drug and grade	1991	1992	1993	1994	1995	1996	1997	1998
Alcohol								
8th-graders	25.1	26.1	[1]24.3	[1]25.5	[1]24.6	[1]26.2	[1]24.5	[1]23.0
10th-graders	42.8	39.9	[1]38.2	[1]39.2	[1]38.8	[1]40.4	[1]40.1	[1]38.8
12th-graders	54.0	51.3	[1]48.6	[1]50.1	[1]51.3	[1]50.8	[1]52.7	[1]52.0
Marijuana/hashish								
8th-graders	3.2	3.7	[2]6.1	7.8	9.1	11.3	10.2	9.7
10th-graders	8.7	8.1	10.9	15.8	17.2	20.4	20.5	18.7
12th-graders	13.8	11.9	15.5	19.0	21.2	21.9	23.7	22.8
Any illicit drug other than marijuana								
8th-graders	3.8	4.7	5.3	5.6	6.5	6.9	6.0	5.5
10th-graders	5.5	5.7	6.5	7.1	8.9	8.9	8.8	8.6
12th-graders	7.1	6.3	7.9	8.8	10.0	9.5	10.7	10.7
Stimulants								
8th-graders	2.6	3.3	3.6	3.6	4.2	4.6	3.8	3.3
10th-graders	3.3	3.6	4.3	4.5	5.3	5.5	5.1	5.1
12th-graders	3.2	2.8	3.7	4.0	4.0	4.1	4.8	4.6
LSD								
8th-graders	0.6	0.9	1.0	1.1	1.4	1.5	1.5	1.1
10th-graders	1.5	1.6	1.6	2.0	3.0	2.4	2.8	2.7
12th-graders	1.9	2.0	2.4	2.6	4.0	2.5	3.1	3.2
Cocaine								
8th-graders	0.5	0.7	0.7	1.0	1.2	1.3	1.1	1.4
10th-graders	0.7	0.7	0.9	1.2	1.7	1.7	2.0	2.1
12th-graders	1.4	1.3	1.3	1.5	1.8	2.0	2.3	2.4
Tranquilizers								
8th-graders	0.8	0.8	0.9	1.1	1.2	1.5	1.2	1.2
10th-graders	1.2	1.5	1.1	1.5	1.7	1.7	2.2	2.2
12th-graders	1.4	1.0	1.2	1.4	1.8	2.0	1.8	2.4
Cigarettes								
8th-graders	14.3	15.5	16.7	18.6	19.1	21.0	19.4	19.1
10th-graders	20.8	21.5	24.7	25.4	27.9	30.4	29.8	27.6
12th-graders	28.3	27.8	29.9	31.2	33.5	34.0	36.5	35.1
Inhalants								
8th-graders	4.4	4.7	5.4	5.6	6.1	5.8	5.6	4.8
10th-graders	2.7	2.7	3.3	3.6	3.5	3.3	3.0	2.9
12th-graders	2.4	2.3	2.5	2.7	3.2	2.5	2.5	2.3

[1] In 1993, the questions regarding alcohol consumption changed; therefore, data for alcohol use from 1993 through 1998 may not be comparable to earlier years. For example, in 1993, the original wording produced an estimate of 26, 42, and 51 percent for alcohol use of 8th-, 10th-, and 12th-graders, respectively. The new wording produced an estimate of 24, 38, and 49 percent for alcohol use of 8th-, 10th-, and 12th-graders, respectively.

[2] Revised from previously published figure.

NOTE: Only drug use not under a doctor's orders is included. Estimates were tabulated using restricted-use files. Response rates for this survey do not meet NCES standards.

SOURCE: University of Michigan, Survey Research Center, Institute for Social Research, Monitoring the Future Study.

Table 27-3 **Percentage of students who reported that it would be "fairly easy" or "very easy" to get drugs, by type of drug and grade: School years 1992–98**

Type of drug and grade	1992	1993	1994	1995	1996	1997	1998
Alcohol							
8th-graders	76.2	73.9	74.5	74.9	75.3	74.9	73.1
10th-graders	88.6	88.9	89.8	89.7	90.4	89.0	88.0
12th-graders	—	—	—	—	—	—	—
Marijuana							
8th-graders	42.3	43.8	49.9	52.4	54.8	54.2	50.6
10th-graders	65.2	68.4	75.0	78.1	81.1	80.5	77.9
12th-graders	82.7	83.0	85.5	88.5	88.7	89.6	90.4
Heroin							
8th-graders	19.7	19.8	19.4	21.1	20.6	19.8	18.0
10th-graders	24.3	24.3	24.7	24.6	24.8	24.4	23.0
12th-graders	34.9	33.7	34.1	35.1	32.2	33.8	35.6
LSD							
8th-graders	21.5	21.8	21.8	23.5	23.6	22.7	19.3
10th-graders	33.6	35.8	36.1	39.8	41.0	38.3	34.0
12th-graders	44.5	49.2	50.8	53.8	51.3	50.7	48.8
Cocaine							
8th-graders	25.7	25.9	26.4	27.8	27.2	26.9	25.7
10th-graders	35.0	34.1	34.5	35.3	36.9	37.1	36.8
12th-graders	48.0	45.4	43.7	43.8	44.4	43.3	45.7
Tranquilizers							
8th-graders	22.9	21.4	20.4	21.3	20.4	19.6	18.1
10th-graders	31.6	30.5	29.8	30.6	30.3	28.7	26.5
12th-graders	40.9	41.1	39.2	37.8	36.0	35.4	36.2
Cigarettes							
8th-graders	77.8	75.5	76.1	76.4	76.9	76.0	73.6
10th-graders	89.1	89.4	90.3	90.7	91.3	89.6	88.1
12th-graders	—	—	—	—	—	—	—

— Not available.

NOTE: Respondents answered the question "How difficult do you think it would be for you to get each of the following types of drugs, if you wanted some?" on the following scale: "probably impossible," "very difficult," "fairly difficult," "fairly easy," or "very easy." Eighth- and 10th-graders were also given the response option "can't say, drug unfamiliar." Percentages include responses of "fairly easy" and "very easy." Estimates were tabulated using restricted-use files. Response rates for this survey do not meet NCES standards.

SOURCE: University of Michigan, Survey Research Center, Institute for Social Research, Monitoring the Future Study.

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Table 28-1 Percentage distribution of enrollment according to family income, by school level and type: October 1979, 1982, 1985, 1991, 1994, and 1997

	Family income*								
	1979			1982			1985		
School level and type	Low	Middle	High	Low	Middle	High	Low	Middle	High
Preschool									
All public	24.6	58.5	16.9	28.6	55.3	16.0	23.7	62.3	14.0
All private	4.7	57.8	37.5	3.6	59.9	36.5	3.6	56.9	39.6
Church-related	6.4	52.3	41.3	4.9	57.2	37.9	3.6	57.8	38.6
Nonchurch-related	3.7	61.3	35.0	2.7	61.7	35.5	3.5	56.3	40.2
Kindergarten									
All public	16.4	65.9	17.6	19.5	62.6	17.9	20.9	62.2	16.9
All private	3.3	63.6	33.1	5.3	60.7	34.0	5.3	61.9	32.8
Church-related	2.7	64.5	32.8	5.2	61.5	33.4	5.8	60.9	33.3
Nonchurch-related	4.6	61.7	33.6	5.6	58.3	36.1	3.9	64.6	31.4
Elementary									
All public	13.1	64.4	22.5	17.6	60.8	21.7	18.2	61.0	20.9
All private	4.3	54.4	41.2	5.7	57.1	37.2	5.7	56.9	37.4
Church-related	4.4	57.5	38.1	6.2	58.9	34.9	5.7	58.8	35.5
Nonchurch-related	3.9	33.3	62.8	2.4	43.8	53.8	5.9	45.2	48.9
Secondary									
All public	10.5	59.4	30.1	13.1	58.4	28.4	13.2	58.3	28.5
All private	3.3	44.3	52.4	3.3	47.9	48.7	4.5	43.2	52.2
Church-related	3.1	46.4	50.5	3.5	49.8	46.7	4.3	45.9	49.8
Nonchurch-related	3.8	35.8	60.4	2.5	40.6	57.0	5.6	29.9	64.5

	Family income*								
	1991			1994			1997		
School level and type	Low	Middle	High	Low	Middle	High	Low	Middle	High
Preschool									
All public	31.5	55.3	13.2	29.6	57.0	13.4	28.9	56.6	14.5
All private	4.2	53.5	42.3	5.6	52.9	41.5	6.7	55.0	38.3
Church-related	2.9	54.1	43.1	4.3	56.6	39.1	5.9	57.8	36.4
Nonchurch-related	5.3	53.0	41.7	6.7	49.9	43.4	7.4	52.6	40.0
Kindergarten									
All public	23.0	58.9	18.2	21.9	59.5	18.6	20.5	60.6	18.9
All private	5.7	50.7	43.6	7.5	57.6	35.0	7.4	55.9	36.7
Church-related	6.6	53.1	40.4	7.5	61.4	31.2	7.8	58.8	33.4
Nonchurch-related	3.7	45.1	51.2	7.5	48.3	44.2	6.6	49.7	43.7
Elementary									
All public	18.4	60.5	21.0	17.1	60.4	22.5	18.0	59.9	22.1
All private	4.7	51.9	43.4	5.6	55.2	39.2	4.8	53.4	41.9
Church-related	5.0	53.8	41.2	5.7	58.2	36.0	4.5	56.0	39.6
Nonchurch-related	3.5	42.7	53.9	5.0	44.7	50.4	5.8	44.0	50.3
Secondary									
All public	14.7	59.6	25.8	14.2	59.4	26.4	14.6	59.5	25.9
All private	4.3	46.3	49.4	5.3	49.8	44.9	5.6	44.5	49.9
Church-related	3.5	49.5	47.0	5.1	50.8	44.0	4.8	45.5	49.7
Nonchurch-related	7.0	36.3	56.6	5.6	47.0	47.5	7.9	41.5	50.6

* Low income is the bottom 20 percent of all family incomes; high income is the top 20 percent of all family incomes; and middle income is the 60 percent in between. See the supplemental note to *Indicator 53* for further discussion.

NOTE: In 1994, the survey instrument for the Current Population Survey (CPS) was changed and weights were adjusted. See the supplemental note to *Indicator 51* for further discussion. Details may not add to 100.0 due to rounding.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Private School Tuition

Prior to 1994, the Current Population Survey (CPS) gathered information regarding private school tuition rates using the following question: "What is the amount of tuition and fees for this school year at the school . . . is attending?" Beginning in 1994, this question was revised to: "What is the amount being paid for . . .'s tuition and fees at school this year? " The change in survey questions in 1994 may cause an underrepresentation of tuition rates compared with earlier years because some students receive reduced or free tuition based on grants, scholarships, vouchers, and other means of assistance, and therefore do not pay all tuition and fees.

Another change to the CPS in 1997 was that respondents were asked the following question: "Is this amount paid per month, per semester, or per year?" Based upon the answer provided for the question, the tuition amount paid was multiplied by the frequency with which the tuition was paid.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Definition of program areas in the National Study of Postsecondary Faculty

The data on program areas were obtained from the National Study of Postsecondary Faculty. The list below shows how related fields were grouped into program areas.

Agriculture/home economics: agriculture-unspecified, agribusiness, agricultural sciences, renewable resources, other agriculture and home economics.

Business: business-unspecified, accounting, banking and finance, business administration and management, business administrative support, human resources development, organizational behavior, marketing and distribution and other business.

Education: education-unspecified, general education, basic skills, bilingual and cross-cultural education, curriculum and instruction, education administration, education evaluation and research, educational psychology, special education, student counseling and personnel, other education, teacher education-unspecified, pre-elementary, elementary, secondary, adult and continuing, other general teacher education programs, and teacher education in specific subjects.

Engineering: engineering-unspecified, general, civil, mechanical, chemical and other engineering and engineering-related technologies.

Fine arts: art-unspecified, art history and appreciation, crafts, dance, design, dramatic arts, film arts, fine arts, music, music history and appreciation, and other visual or performing arts.

Health sciences: health sciences-unspecified, allied health technologies, dentistry, health services administration, medicine, nursing, pharmacy, public health, veterinary medicine, and other health sciences.

Humanities: English and literature-unspecified, general English, composition, American literature, English literature, linguistics, speech, English as second language, other English, foreign languages-unspecified, Chinese, French, German, Italian, Latin, Japanese, other Asian, Russian, Spanish, other foreign languages, philosophy and religion, and history.

Natural sciences: computer science-unspecified, computer and information sciences, computer programming, data processing, systems analysis, other computer science, biological sciences-unspecified, biochemistry, biology, botany, genetics, immunology, microbiology, physiology, zoology, other biological sciences, physical sciences-unspecified, astronomy, chemistry, physics, geological sciences, other physical sciences, mathematics, and statistics.

Social sciences: social sciences-unspecified, psychology, general social sciences, anthropology, archeology, area and ethnic studies, demography, economics, geography, international relations, political science, sociology, and other social sciences.

Other: architecture, communications, industrial arts, law, library and archival sciences, military studies, multi-interdisciplinary studies, parks and recreation, theology, protective services, public affairs, science technologies, vocational training-unspecified, construction trades, consumer services, mechanics and repairers, precision production, transportation, and other.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Study of Postsecondary Faculty, 1993.

Table 31-1 Total number and percentage distribution of students formally enrolled in distance education courses, by selected institutional characteristics: 1995

Selected institutional characteristics	Number of students	Percentage distribution
All institutions	**753,640**	**100**
Institution type*		
Private 4-year	104,960	14
Public 2-year	414,160	55
Public 4-year	234,020	31
Region		
Northeast	72,960	10
Southeast	200,230	27
Central	205,030	27
West	275,420	37
Enrollment		
Less than 3,000	116,320	15
3,000 to 9,999	232,750	31
10,000 or more	404,570	54

* Data for private 2-year institutions are not included because too few of them offered distance education in fall 1995 to make reliable estimates. Data for private 2-year institutions are included in the totals and in analyses by other institutional characteristics.

NOTE: The numbers of degrees and certificates have been rounded to the nearest 10. Details may not add to total due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Postsecondary Education Quick Information System, *Distance Education in Higher Education Institutions*, 1997.

Table 31-2 Percentage of higher education institutions offering degrees or certificates to students taking only distance education courses, total number of degrees or certificates offered, by selected institutional characteristics: 1995

Selected institutional characteristics	Percentage of institutions offering		Total number of degrees or certificates offered		Total number of recipients	
	Degrees	Certificates	Degrees	Certificates	Degrees	Certificates
All institutions	**23**	**7**	**690**	**170**	**3,430**	**1,970**
Institution type*						
Private 4-year	29	14	160	60	1,080	160
Public 2-year	12	3	130	20	170	50
Public 4-year	35	9	390	90	2,180	1,770
Region						
Northeast	14	5	50	30	90	10
Southeast	24	6	180	30	1,080	240
Central	26	7	270	30	560	1,260
West	23	8	200	80	1,700	460
Enrollment						
Less than 3,000	17	5	160	30	1,080	100
3,000 to 9,999	19	7	210	50	710	160
10,000 or more	34	10	320	90	1,640	1,720

* Data for private 2-year institutions are not included because too few of them offered distance education in fall 1995 to make reliable estimates. Data for private 2-year institutions are included in the totals and in analyses by other institutional characteristics.

NOTE: The numbers of degrees and certificates have been rounded to the nearest 10. Details may not add to total due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Postsecondary Education Quick Information System, *Distance Education in Higher Education Institutions*, 1997.

Table 31-3 Percentage of higher education institutions currently offering or planning to offer distance education courses, by types of delivery technologies: 1995

		Percentage planning to start or increase use of technology	
Delivery technology	Currently use the technology[1]	Institutions currently offering distance education courses[1]	Institutions that plan to start offering distance education courses[2]
Two-way interactive video	57	81	77
Two-way audio, one-way video	24	33	38
One-way live video	9	27	31
One-way prerecorded video	52	52	44
Audiographics	3	9	7
Two-way audio (e.g., audio/phone conferencing)	11	18	21
One-way audio (e.g., radio, audiotapes)	10	11	11
Two-way online (computer-based) interactions during instruction	14	75	64
Other computer-based technology (e.g., Internet)	22	84	74

[1] Based on institutions that currently offer distance education courses.

[2] Based on institutions that do not currently offer but plan to offer distance education courses in the next 3 years.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Postsecondary Education Quick Information System, *Distance Education in Higher Education Institutions*, 1997.

Part-time instructional faculty at postsecondary institutions

The faculty universe for the National Study of Postsecondary Faculty (NSOPF-93) included anyone who was designated as faculty, whether or not their responsibilities included instruction, as well as other (non-faculty) personnel with instructional responsibilities.

The analyses for this indicator include all those who had any instructional duties in the fall of 1992, as long as the faculty member has some instructional responsibilities for credit. Therefore, it includes those faculty whose principal activity that semester was research-oriented, technical, clinical, service-oriented, or administrative, as long as the faculty member taught at least one class for credit. In fact, in fall 1992, 15 percent of all faculty who taught at least one class for credit had a principal activity other than teaching.

The analysis for the indicators using NSOPF categorizes institutions of higher education into six types, as shown below. Remaining institutions, such as religious or specialized institutions, were included in the totals but are not shown separately.

Types of institutions

Research university: Institution among the 100 leading universities that receives federal research funds. Each of these universities awards a substantial number of doctor's degrees in many fields.

Doctor's university: Institution that offers a full range of bachelor's degree and doctor's degree programs in at least three disciplines, but tends to be less focused on research and receives fewer federal research dollars than the research universities.

Comprehensive institution: Institution that offers liberal arts and professional programs. The master's degree is the highest degree typically offered.

Liberal arts institution: Institution that is smaller and generally more selective than comprehensive colleges and universities. A liberal arts institution primarily offers bachelor's degrees, although some offer master's degrees.

2-year institution: Institution that offers certificate or degree programs through the associate of arts level. Two-year institutions, with few exceptions, offer no bachelor's degrees.

Other: Institutions that offer degrees ranging from the bachelor's to the doctor's, with at least 50 percent of the degrees awarded in a single discipline (including institutions whose primary purpose is to offer religious instruction or train members of the clergy; other separate health professional schools that award most of their degrees in fields such as chiropractic, nursing, pharmacy or podiatry; schools of engineering and technology; schools of business and management; schools of art, music, and design; schools of law; teachers colleges; other specialized institutions such as graduate centers, maritime academies, military institutions, and institutions that do not fit other classifications; and tribal colleges and universities, primarily tribally contracted and located on reservations).

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Profiles of Faculty in Higher Education Institutions*, 1988.

Table 33-1 Mean classroom hours per week, mean student contact hours per week, and average class size for full-time postsecondary faculty, by academic rank, type and control of institution, and academic discipline of class taught: Fall 1987 and fall 1992

Characteristics	Mean classroom hours per week	Mean student contact hours per week	Average class size
		Fall 1987	
Total*	**9.8**	**300.4**	**30.0**
Academic rank			
Full professor	8.6	277.9	32.8
Associate professor	9.1	314.5	33.6
Assistant professor	9.3	262.2	28.0
Instructor	13.4	371.2	26.9
Lecturer	9.2	424.2	41.6
Type of institution			
Research	6.5	252.5	38.5
Doctor's	8.4	279.0	33.8
Comprehensive	10.5	305.5	29.0
Liberal arts	10.6	235.7	21.4
2-year	15.0	416.6	26.5
Control of institution			
Public	10.2	324.1	31.5
Private	8.8	247.4	28.3
Academic discipline of class taught			
Agriculture	8.8	247.0	29.6
Business	10.6	327.5	29.9
Education	9.8	259.7	24.5
Engineering	9.5	256.4	27.2
Fine arts	12.1	279.5	22.1
Humanities	10.1	276.9	26.6
Natural sciences	9.4	352.9	36.0
Social sciences	8.7	328.5	37.0
		Fall 1992	
Total*	**11.0**	**337.4**	**30.6**
Academic rank			
Full professor	9.6	323.7	33.6
Associate professor	10.1	324.9	31.5
Assistant professor	10.6	312.5	30.1
Instructor	15.9	434.0	26.3
Lecturer	9.0	301.8	34.8
Type of institution			
Research	6.9	270.3	38.9
Doctor's	9.2	356.7	39.7
Comprehensive	10.8	318.5	29.1
Liberal arts	11.0	242.2	21.4
2-year	16.2	451.9	27.3
Control of institution			
Public	11.4	358.5	31.8
Private	10.0	286.2	27.8
Academic discipline of class taught			
Agriculture	11.0	311.1	28.3
Business	11.0	317.9	29.2
Education	10.2	276.9	25.8
Engineering	9.6	243.9	25.3
Fine arts	12.4	269.3	21.5
Humanities	10.9	296.0	26.8
Natural sciences	10.2	376.4	36.4
Social sciences	9.5	357.9	36.0

* Included in the total but not shown separately are other types of academic ranks, institutions, and academic disciplines.

NOTE: See the supplemental note to this indicator for definitions of classroom and student contact hours.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Study of Postsecondary Faculty, 1988 and 1993.

Teaching workload and research production of full-time postsecondary faculty

The 1988 National Study of Postsecondary Faculty (NSOPF) was a survey of faculty who had at least some instructional duties (such as teaching one or more classes for credit or advising or supervising students' academic activities) during the fall 1987 term.

Unlike NSOPF-88, which was limited to faculty whose regular assignments included instruction, the faculty universe for NSOPF-93 was expanded to include anyone who was designated as faculty, whether or not their responsibilities included instruction, as well as other (non-faculty) personnel with instructional responsibilities.

The analyses for this indicator include all those who had any instructional duties in the fall of 1987 and 1992. Therefore, it includes those faculty whose principal activity that semester was research, technical, clinical, service, or administration, as long as the faculty member has some instructional responsibilities for credit. In fact, in fall 1992, 15 percent of all faculty who taught at least one class for credit had a principal activity other than teaching.

The analysis for the indicators using NSOPF categorizes institutions of higher education into five types, as shown below. Remaining institutions, such as religious or specialized institutions, were included in the totals but are not shown separately.

Types of institutions

Research university: Institution among the 100 leading universities that receives federal research funds. Each of these universities awards substantial numbers of doctorates across many fields.

Doctor's university: Institution that offers a full range of baccalaureate programs and PhD degrees in at least three disciplines, but tends to be less focused on research and receives fewer federal research dollars than the research universities.

Comprehensive institution: Institution that offers liberal arts and professional programs. The master's degree is the highest degree offered.

Liberal arts institution: Institution that is smaller and generally more selective than comprehensive colleges and universities. A liberal arts institution primarily offers bachelor's degrees, although some offer master's degrees.

2-year institution: Institution that offers certificate or degree programs through the associate of arts level. Two-year institutions, with few exceptions, offer no bachelor's degrees, although some offer master's degrees.

Time allocation

NSOPF survey respondents were asked to estimate the percentage of total working hours they spent on each of the activities below:

Teaching: Includes teaching; grading papers; preparing courses; developing new curricula; advising or supervising students; or working with student organizations or intramural sports.

Research/scholarship: Includes conducting research; reviewing or preparing articles or books; attending or preparing for professional meetings or conferences; reviewing proposals; seeking outside funding; giving performances or exhibitions in the fine or applied arts; or giving speeches.

Professional growth: Includes taking courses or pursuing an advanced degree or other professional development activities to remain current in their field of practice.

Administration: Performing administrative activities.

Outside consulting or freelance work: Conducting outside consulting or other employment.

Service/other: Includes providing legal or medical service or psychological counseling to clients or patients; providing paid or unpaid community or public service, or service to professional societies/associations; or participating in other activities or work not listed above.

Classroom and student contact hours

Classroom hours: The number of hours per week faculty members spent teaching.

Student contact hours: The sum of the number of hours per week faculty members spent teaching over all classes, multiplied by the number of students in each class.

Class size: The total number of student contact hours divided by the mean number of classroom hours faculty spent per week.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Profiles of Faculty in Higher Education Institutions*, 1988.

Urbanicity variable in the National Household Education Survey

The National Household Education Survey (NHES) urbanicity variable is a linked-derived variable that categorizes the respondent's ZIP code as "urban" or "rural." The variable was created using the respondent's ZIP code to extract data from the 1990 Census of Population Summary Tape File 3B. "Urban" is further broken down into "inside urbanized area" (UA) and "outside UA." Definitions for these categories were taken directly from the 1990 Census of the Population. A UA comprises a place and the adjacent densely surrounding territory that together have a minimum population of 50,000. The term "place" in the UA definition includes both incorporates places, such as cities and villages, and census-designated places, which are unincorporated areas designated by the Census Bureau in cooperation with state and local agencies in order to permit tabulation of data for Census Bureau products. The "densely settled surrounding territory" adjacent to places consists of contiguous and non-contiguous territories of relative high population density within short distances. "Urban outside of UA" generally includes incorporated or unincorporated places outside of UA with a minimum population of 2,500.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), *Adult Education Data File User's Manual*, 1996.

Table 36-1 Percentage distribution of 6- to 12-year-olds, by selected family characteristics: 1972–97

Selected family characteristics	1972	1977	1982	1987	1992	1997
Race-ethnicity of child						
White	79.4	77.0	74.2	71.0	70.0	66.3
Black	12.7	13.9	13.8	14.6	14.5	14.9
Hispanic	6.5	7.3	8.9	10.8	11.2	13.9
Other	1.4	1.7	3.0	3.7	4.4	5.0
Mother's highest education level						
Less than high school diploma	34.3	29.5	23.6	20.4	18.0	15.8
High school diploma or GED	47.6	47.4	48.0	45.9	38.8	34.8
Some college	10.8	13.4	16.5	18.9	26.1	28.8
Bachelor's degree or higher	7.2	9.8	12.0	14.8	17.2	20.5
Father's highest education level						
Less than high school diploma	34.9	28.7	21.4	18.0	14.9	15.3
High school diploma or GED	36.9	36.7	37.9	37.4	35.2	31.4
Some college	12.0	14.6	17.7	20.2	23.8	25.1
Bachelor's degree or higher	16.2	20.0	23.1	24.4	26.1	28.2
Mother's employment status						
Employed	38.5	45.5	52.1	58.1	61.2	66.4
Unemployed, looking for work	2.7	4.1	5.9	5.2	5.0	3.9
Not in labor force	58.8	50.4	42.1	36.7	33.8	29.7
Father's employment status						
Employed	93.1	91.0	88.9	90.3	89.1	91.2
Unemployed, looking for work	3.5	4.2	6.8	5.1	5.9	3.7
Not in labor force	3.5	4.8	4.3	4.6	5.0	5.1
Family type						
Two-parent household	86.8	81.2	77.1	74.9	72.8	71.4
Father as head of household	1.0	1.2	1.8	2.4	3.0	4.2
Mother as head of household	12.3	17.6	21.1	22.7	24.1	24.4
Number of other children in household						
0–1	28.8	46.4	50.1	52.3	53.5	54.5
2–3	46.7	40.8	41.0	40.8	39.8	39.5
4 or more	24.4	12.8	8.9	7.0	6.7	6.1
Age of mother at child's birth						
Under 20	10.6	12.1	13.7	12.6	10.8	9.1
20–24	33.2	35.2	35.0	32.3	30.7	25.1
25–29	26.8	27.8	30.1	33.0	31.3	32.2
30 or older	29.5	24.9	21.1	22.1	27.2	33.6
Median family income (in constant 1997 dollars)	$41,449	$41,014	$37,671	$39,715	$39,733	$40,598

NOTE: The Current Population Survey (CPS) questions used to obtain educational attainment were changed in 1992. See the supplemental note to *Indicator 59* for further discussion. Information on parents' educational attainment, employment status, or age of mother at child's birth is available only for those parents who live in the same household with their child. See the supplemental note to this indicator for further discussion on how the data were calculated. In 1994, the survey instrument for the CPS was changed and weights were adjusted. See the supplemental note to *Indicator 51* for further discussion. Percentages for employment status were based on the total population, not just those in the labor force. Details may not add to 100.0 due to rounding.

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

Family characteristics of 6- to 12-year-olds

Data on family characteristics of 6- to 12-year-olds were taken from the March Current Population Surveys (CPS). Information about parents was obtained by linking parents' records with their children's records using common variables, such as household ID, parent ID, spouse ID, and person IDs at various steps.

The March CPS is a hierarchical data file with three levels of information: household, family, and person level. Some information used in this indicator, such as family income or family type, was obtained from family level and then retained/passed on to the person level. Before the merging process began, an extract file which included information from both household and family levels was created for each individual (at the person level). In the merging process, three temporary data sets were created using the extract file: heads of household, spouses of the head, and children in the household. Records for head of household were first linked to records of spouses of heads of household to create one file of parents' records containing information for both parents. Finally, the children's records were merged with the parents' records using common codes between the files, such as household ID, parent ID and person ID. This merging process allowed information such as parents' education level and parents' employment status to be linked to children's files.

Family type

Information on family type, which originated at the family level, was taken from the parents' records and was then linked to the children's records. The original family type categories were "husband and wife family," "male head," and "female head." When the parents' information was merged with the children's records, these categories changed to "both parents," "father as head of household," and "mother as head of household," so that family type was in reference to the child rather than the parent.

Age of mother at child's birth

For this analysis, the age of the mother at her child's birth was computed by subtracting the child's age from its mother's age. Only children whose mother was in the household were included in the analysis.

Number of other children in the family

Number of other children in the family was calculated by adding the total number of children in each family, and then subtracting one (for the child in reference) from the total.

Mother's or father's highest education level

A parent's highest education level was obtained by merging the information from parents' records with the children's records. The percentage distribution of mother's and father's highest education level was calculated based only on children who live with their parents. For example, the percentage distribution for mother's highest education level was calculated based on children who live with "both parents" and who live with "mother only." For children who live with only their father, their mother's education level was unknown; therefore, this "unknown" group was excluded for this particular section.

Employment status of parents

Information on the employment status of parents was computed similarly as that for the parents' highest education level.

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys, unpublished tabulations.

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Table 37-1 National index of public effort to fund higher education (public revenues per student in relation to per capita personal income): School years ending 1930–96

School year ending	National effort index[1]	Public higher education revenues[2] (billions)	Total higher education enrollment (millions)	Public higher education revenues per student[2]	Total personal income[2] (billions)	Total population[3] (millions)	Per capita personal income[2]
1930[4]	22.5	$1.6	1.1	$1,490	$805.5	121.9	$6,609
1940[4]	24.0	2.5	1.5	1,671	911.6	131.0	6,958
1950	28.8	7.3	[4]2.7	2,745	1,422.7	149.2	9,536
1960	30.4	14.1	3.6	3,881	2,273.5	177.8	12,784
1966	31.3	29.1	5.9	4,923	3,051.1	194.3	15,703
1968	29.7	34.6	6.9	5,004	3,348.3	198.7	16,850
1970	31.1	43.1	8.0	5,390	3,514.4	202.7	17,340
1971	28.6	43.4	8.6	5,052	3,623.8	205.1	17,672
1972	27.6	45.9	8.9	5,128	3,854.3	207.7	18,561
1973	26.9	47.9	9.2	5,201	4,065.8	209.9	19,371
1974	26.5	48.3	9.6	5,034	4,019.4	211.9	18,968
1975	27.4	52.3	10.2	5,117	3,995.0	213.9	18,681
1976	25.5	55.3	11.2	4,940	4,180.1	216.0	19,355
1977	25.3	55.5	11.0	5,041	4,346.3	218.0	19,934
1978	24.2	56.5	11.3	5,004	4,562.4	220.2	20,716
1979	23.8	55.7	11.3	4,943	4,617.2	222.6	20,744
1980	23.5	54.9	11.6	4,742	4,535.5	225.1	20,153
1981	22.3	54.5	12.1	4,501	4,604.5	227.7	20,220
1982	21.9	54.2	12.4	4,384	4,601.3	230.0	20,009
1983	21.5	54.5	12.4	4,383	4,736.8	232.2	20,401
1984	20.9	56.0	12.5	4,492	5,038.9	234.3	21,506
1985	22.2	60.0	12.2	4,900	5,214.1	236.3	22,061
1986	23.0	63.8	12.2	5,212	5,412.5	238.5	22,697
1987	22.5	65.0	12.5	5,201	5,562.9	240.6	23,119
1988	21.5	66.7	12.8	5,225	5,897.8	242.8	24,290
1989	21.8	68.7	13.1	5,261	5,912.2	245.0	24,129
1990	21.3	69.9	13.5	5,161	5,983.4	247.3	24,191
1991	21.2	69.7	13.8	5,040	5,942.7	249.9	23,776
1992	20.4	70.8	14.4	4,929	6,106.1	[1]252.6	24,169
1993	20.3	71.1	14.5	4,911	6,182.7	255.4	24,210
1994	20.6	72.1	14.3	5,043	6,332.9	258.1	24,538
1995	20.8	74.0	14.3	5,184	6,494.4	260.6	24,921
1996	20.6	74.5	14.3	5,223	6,675.0	263.0	25,376

[1] Revised from previously published figures.

[2] In constant 1998 dollars, adjusted by the Consumer Price Index.

[3] For the calendar year in which the school year ended.

[4] As of July 1, the year in which the school year began.

[5] Income or population is for the calendar year in which the school year began.

NOTE: Public higher education revenues are the portion of educational and general revenue from federal, state, and local sources at both public and private institutions. Pell Grants and other direct student aid are excluded from this time series, understating public higher education revenues between 2 and 4 percent. Enrollment includes all institutions, public and private.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1998*, tables 3, 37, and 324; *120 Years of American Education: A Statistical Portrait, 1993*, table 33.

Calculation of national index of public effort to fund education

There are many indices of public investment in education available. Choosing the most appropriate measure has been an issue in international comparisons as well as in national trends. The national index of public effort provides a measure of public investment in each student compared with available societal resources.

Public education revenues per student are the ratio of total public education revenues to public and private enrollment. Per capita income is the ratio of total personal income to total population. The index can be expressed algebraically, therefore, as a function of four variables:

$$\text{National effort index} = \frac{\text{Public education revenues per student}}{\text{Per capita income}} \times 100$$

or

$$\text{National effort index} = \frac{\text{Public education revenues / Total personal income}}{\text{Total enrollment / Total population}} \times 100$$

Revenue data from elementary/secondary and higher education are based on different accounting systems and are not entirely comparable. For example, elementary and secondary public revenues represent additions to assets (cash) from taxes, appropriations, and other funds, which do not incur an obligation that must be met at some future date (loans) in all public schools. Included are revenues that are spent on construction of buildings and other investments in the physical plant. Because of the difficulty in constructing a comparable time series, public funds going to private schools (for Head Start, disabled children, etc.) have been excluded.

For higher education, educational and general public revenues are those available from public sources at both public and private institutions for the regular or customary activities of an institution that are part of, and contributory to, or necessary to its instructional or research program. These include salaries and travel of faculty and administrative or other employees; purchase of supplies or materials for current use in classrooms, libraries, laboratories, or offices; and operation and maintenance of the educational plant. In contrast to elementary/secondary public revenues, higher education public revenues, as defined in this indicator, do not include public funds that would be used for expansion of the physical plant. As a result, the reader should focus on the changes over time in the elementary/secondary and higher education measures rather than on comparisons across levels.

Enrollment is in all institutions, regardless of control. No adjustments were made for part-time enrollment.

Gross Domestic Product (GDP) is Gross National Product (GNP) less net property income from abroad for the calendar year in which the school year began.

Total education revenues are in 1998 dollars, based on the Consumer Price Index (CPI), prepared by the Bureau of Labor Statistics, U.S. Department of Labor, adjusted to a school-year basis. Personal income is in constant 1998 dollars, adjusted by CPI for the calendar year.

Table 38-1 Percentage distribution of public school expenditures, by function and selected district characteristics: School year 1994–95

Selected district characteristics	Percentage distribution of school districts	Total	Instruction	Support services	Capital outlay	Other
Median household income						
Less than $20,000	20.6	100.0	54.6	29.4	7.1	8.9
20,000–24,999	26.6	100.0	53.6	29.1	8.0	9.3
25,000–29,999	19.5	100.0	53.5	28.0	9.1	9.5
30,000–34,999	12.3	100.0	53.1	28.9	8.9	9.1
35,000 or more	21.0	100.0	52.7	29.5	9.2	8.6
Percentage of school-age children in poverty						
0–5	16.0	100.0	53.0	30.1	8.3	8.6
6–20	51.3	100.0	52.7	28.8	9.6	8.9
21–40	26.6	100.0	54.1	28.6	7.8	9.4
41 or more	6.1	100.0	54.4	29.9	6.9	8.7
Percentage of limited-English-proficient school-age children						
None	42.4	100.0	52.9	28.7	7.8	10.7
1–4	52.9	100.0	53.0	29.4	8.8	8.7
5 or more	4.7	100.0	54.7	26.9	8.9	9.5
Percentage of minority school-age children						
Less than 5	57.0	100.0	53.7	28.2	8.1	10.0
5–19	23.6	100.0	52.6	29.1	10.0	8.2
20–49	14.2	100.0	52.5	29.8	9.2	8.6
50 or more	5.2	100.0	54.9	28.5	7.0	9.7

NOTE: See the glossary for definitions of specific expenditure functions. Information on district characteristics are from the U.S. Department of Commerce, Bureau of the Census, "1990 Census School District Special Tabulations." Details may not add to totals due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data surveys, "School District Finance File," 1994–95. U.S. Department of Commerce, Bureau of the Census, "1990 Census School District Special Tabulations."

Table 39-1 Percentage distribution of general education revenues of higher education institutions per full-time-equivalent (FTE) student, by revenue source and control and type of institution: Academic years ending 1977–96

Academic year ending	Total	Tuition and fees*	Federal appropriations	State and local appropriations	Federal grants and contracts	State and local grants and contracts	Private gifts	Endowment	Sales and services of educational activities
				Private, not-for-profit universities					
1977	100.0	40.3	2.2	1.8	27.7	2.5	12.9	8.0	4.6
1978	100.0	40.6	2.0	1.6	27.4	2.2	13.4	7.7	5.1
1979	100.0	40.8	2.0	1.5	27.4	2.2	12.9	8.2	4.9
1980	100.0	40.1	1.9	1.4	27.8	2.6	12.4	8.3	5.4
1981	100.0	40.8	1.8	1.5	27.4	2.1	12.8	8.4	5.2
1982	100.0	42.5	1.7	1.4	25.6	1.9	12.7	8.7	5.3
1983	100.0	45.0	1.8	1.4	23.2	2.2	12.9	7.7	5.7
1984	100.0	44.2	1.6	1.3	22.8	2.2	13.4	8.4	6.1
1985	100.0	44.4	1.5	1.2	22.8	2.1	13.5	8.7	5.7
1986	100.0	44.2	1.4	1.2	23.2	2.2	13.6	8.6	5.7
1987	100.0	43.8	1.1	1.1	23.9	2.8	13.3	8.2	5.7
1988	100.0	44.0	1.1	1.0	22.3	3.6	13.5	8.5	6.0
1989	100.0	44.0	1.1	0.9	21.9	3.7	13.2	8.6	6.5
1990	100.0	43.9	1.1	0.9	21.9	3.7	13.4	8.6	6.4
1991	100.0	45.1	0.9	0.8	21.1	3.2	13.6	8.5	6.8
1992	100.0	45.2	0.9	0.5	21.0	3.4	13.5	8.1	7.4
1993	100.0	44.9	0.8	0.4	21.0	3.4	14.0	8.1	7.4
1994	100.0	45.1	0.8	0.4	21.5	2.6	14.1	7.9	7.6
1995	100.0	45.2	0.7	0.4	21.1	2.7	14.0	8.1	7.8
1996	100.0	45.4	0.7	0.4	20.8	2.4	14.2	8.7	7.4
				Public universities					
1977	100.0	16.4	2.9	52.4	17.0	2.1	4.7	0.7	3.7
1978	100.0	16.3	3.0	52.5	16.7	2.1	4.8	1.0	3.5
1979	100.0	15.9	3.0	52.1	16.9	2.3	4.7	1.0	4.0
1980	100.0	15.9	2.6	51.8	17.4	2.1	5.0	1.1	4.1
1981	100.0	16.4	2.3	51.3	17.3	2.3	5.0	1.1	4.3
1982	100.0	17.6	2.1	51.4	15.8	2.2	5.3	1.1	4.4
1983	100.0	19.0	2.0	50.3	15.0	2.1	5.9	1.2	4.5
1984	100.0	19.1	2.0	50.6	14.9	1.9	5.8	1.3	4.4
1985	100.0	18.3	2.1	51.2	14.8	2.0	5.9	1.3	4.4
1986	100.0	18.6	2.1	50.5	14.8	2.0	6.2	1.4	4.4
1987	100.0	19.5	1.9	49.3	15.0	2.4	6.4	1.0	4.5
1988	100.0	19.8	1.5	48.7	15.4	2.4	6.6	1.0	4.5
1989	100.0	20.0	1.5	47.7	15.6	2.6	7.0	1.0	4.6
1990	100.0	20.4	1.4	46.8	15.6	2.9	7.4	1.0	4.6
1991	100.0	21.1	1.4	45.6	16.0	3.0	7.2	1.1	4.8
1992	100.0	22.3	1.3	43.0	16.7	2.8	7.5	1.2	5.0
1993	100.0	23.3	1.3	41.3	17.2	2.7	7.7	1.3	5.1
1994	100.0	23.8	1.3	40.4	17.7	3.0	7.7	1.2	4.8
1995	100.0	24.0	1.2	40.3	17.7	3.1	7.6	1.3	4.9
1996	100.0	24.6	1.1	39.6	17.2	3.2	7.9	1.4	4.9

Table 39-1 Percentage distribution of general education revenues of higher education institutions per full-time-equivalent (FTE) student, by revenue source and control and type of institution: Academic years ending 1977–96—Continued

Academic year ending	Total	Tuition and fees*	Federal appro-priations	State and local appro-priations	Federal grants and contracts	State and local grants and contracts	Private gifts	Endow-ment	Sales and services of educational activities
Private, not-for-profit 4-year colleges									
1977	100.0	61.7	0.9	2.1	10.8	2.0	15.6	5.8	1.0
1978	100.0	62.5	1.0	2.0	10.5	2.0	15.2	5.8	1.0
1979	100.0	62.2	1.0	1.9	11.0	2.0	14.7	6.2	1.0
1980	100.0	61.0	1.0	1.9	11.5	2.3	14.5	6.6	1.1
1981	100.0	61.6	1.1	1.9	10.7	2.3	14.3	6.9	1.2
1982	100.0	63.0	0.8	1.7	9.2	2.3	14.2	7.6	1.0
1983	100.0	64.6	0.6	1.7	7.7	2.4	14.4	7.5	1.0
1984	100.0	65.0	0.5	1.7	7.7	2.4	14.2	7.4	1.1
1985	100.0	64.8	0.5	1.6	7.7	2.5	14.3	7.5	1.0
1986	100.0	64.9	0.5	1.6	7.8	2.6	14.1	7.4	1.1
1987	100.0	65.2	0.6	1.6	7.4	2.9	14.1	7.2	1.1
1988	100.0	65.5	0.5	1.6	7.4	3.1	13.4	7.3	1.1
1989	100.0	66.0	0.4	1.4	7.1	3.6	13.0	7.5	1.1
1990	100.0	66.9	0.4	1.2	7.1	3.8	12.4	7.3	1.0
1991	100.0	68.1	0.4	1.1	6.8	3.5	12.1	7.1	0.9
1992	100.0	68.9	0.4	0.8	7.0	4.1	11.5	6.5	0.9
1993	100.0	69.2	0.3	0.7	7.1	3.8	11.3	6.1	1.5
1994	100.0	69.6	0.2	0.7	7.0	4.0	11.2	5.8	1.5
1995	100.0	69.9	0.2	0.5	7.2	3.7	11.6	5.9	1.0
1996	100.0	68.9	0.2	0.5	6.6	3.7	12.5	6.5	1.0
Public 4-year colleges									
1977	100.0	16.4	4.9	60.7	11.6	2.1	2.4	0.3	1.7
1978	100.0	16.0	4.9	61.4	10.9	2.2	2.5	0.2	1.8
1979	100.0	15.2	4.9	61.6	11.2	2.3	2.5	0.3	1.9
1980	100.0	14.9	5.0	61.5	11.3	2.2	2.6	0.3	2.1
1981	100.0	15.4	5.3	60.8	10.9	2.2	2.7	0.4	2.3
1982	100.0	16.1	4.7	61.5	9.7	2.1	2.9	0.4	2.5
1983	100.0	17.0	4.8	61.2	8.7	2.1	3.2	0.4	2.5
1984	100.0	18.2	4.7	59.8	8.5	2.3	3.3	0.4	2.7
1985	100.0	17.6	4.6	60.7	8.3	2.1	3.4	0.4	2.8
1986	100.0	17.7	4.3	60.0	8.4	2.6	3.6	0.4	3.0
1987	100.0	18.0	4.3	58.8	8.4	3.0	3.8	0.5	3.3
1988	100.0	18.4	4.3	58.4	8.3	2.9	3.7	0.5	3.5
1989	100.0	19.2	2.8	58.1	8.6	3.0	4.1	0.6	3.7
1990	100.0	19.7	4.2	55.6	8.6	3.2	4.3	0.6	3.8
1991	100.0	20.7	3.8	53.8	8.9	3.4	4.8	0.3	4.2
1992	100.0	22.3	3.6	51.3	9.4	3.7	4.9	0.6	4.2
1993	100.0	23.8	3.4	48.9	9.8	4.0	4.9	0.7	4.4
1994	100.0	24.4	3.6	47.6	10.1	4.2	5.0	0.6	4.6
1995	100.0	24.1	3.4	46.9	10.4	4.9	5.0	0.6	4.7
1996	100.0	24.8	3.5	45.9	10.7	5.5	5.1	0.4	4.1

Table 39-1 Percentage distribution of general education revenues of higher education institutions per full-time-equivalent (FTE) student, by revenue source and control and type of institution: Academic years ending 1977–96—Continued

Academic year ending	Total	Tuition and fees*	Federal appropriations	State and local appropriations	Federal grants and contracts	State and local grants and contracts	Private gifts	Endowment	Sales and services of educational activities
				Public 2-year colleges					
1977	100.0	16.8	2.0	72.5	5.8	2.0	0.5	0.1	0.4
1978	100.0	16.1	1.8	73.3	5.5	2.3	0.5	0.1	0.4
1979	100.0	15.8	1.9	72.7	6.0	2.5	0.5	0.1	0.5
1980	100.0	16.1	1.3	72.6	6.3	2.6	0.5	0.1	0.5
1981	100.0	16.8	1.2	71.7	6.3	2.8	0.5	0.1	0.6
1982	100.0	18.0	1.1	71.7	5.2	2.9	0.5	0.1	0.5
1983	100.0	19.3	0.8	71.4	4.3	2.9	0.6	0.1	0.5
1984	100.0	19.5	0.9	71.0	4.4	2.9	0.6	0.1	0.5
1985	100.0	19.1	0.7	70.9	4.6	3.4	0.6	0.1	0.5
1986	100.0	18.6	0.6	71.4	4.5	3.7	0.6	0.1	0.6
1987	100.0	18.5	0.7	70.4	4.1	4.8	0.6	0.1	0.6
1988	100.0	18.7	0.7	70.5	4.1	4.7	0.7	0.1	0.5
1989	100.0	19.1	0.7	68.7	4.2	6.0	0.8	0.1	0.5
1990	100.0	19.6	0.7	67.7	4.2	6.3	0.9	0.1	0.5
1991	100.0	20.4	0.7	67.4	4.2	5.7	0.9	0.1	0.5
1992	100.0	22.1	0.8	65.2	4.5	5.8	1.0	0.1	0.5
1993	100.0	23.4	0.6	63.7	5.0	5.4	1.0	0.1	0.7
1994	100.0	23.8	0.6	63.0	5.3	5.4	1.0	0.1	0.8
1995	100.0	23.4	0.5	63.0	5.5	5.7	1.1	0.1	0.7
1996	100.0	23.2	0.4	61.5	5.6	7.4	1.1	0.1	0.7

* Federally supported student aid received through students (e.g., Federal Student Loan Programs) is included under tuition and fees.

NOTE: Data for academic years 1976–77 through 1985–86 include only institutions that provided both enrollment and finance data. FTE students include both undergraduate and graduate students. Data for 1989 to 1995 were revised from previously published figures. Details may not add to 100.0 due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Higher Education General Information Survey (HEGIS) "Financial Statistics of Institutions of Higher Education" survey and Integrated Postsecondary Education Data System (IPEDS) "Institutional Characteristics," "Financial Statistics," and "Fall Enrollment" surveys.

Table 39-2 General education revenues of higher education institutions per full-time-equivalent (FTE) student (in constant 1995–96 dollars), by revenue source and control and type of institution: Academic years ending 1977–96

Academic year ending	Total	Tuition and fees*	Federal appropriations	State and local appropriations	Federal grants and contracts	State and local grants and contracts	Private gifts	Endowment	Sales and services of educational activities
					Private, not-for-profit universities				
1977	$22,779	$9,172	$499	$402	$6,315	$564	$2,950	$1,829	$1,049
1978	22,511	9,141	447	360	6,169	506	3,007	1,724	1,157
1979	22,615	9,232	446	347	6,187	506	2,928	1,852	1,116
1980	23,119	9,267	451	327	6,436	611	2,869	1,913	1,244
1981	23,313	9,512	418	353	6,394	489	2,974	1,964	1,209
1982	23,204	9,866	394	334	5,947	452	2,950	2,021	1,240
1983	23,404	10,537	422	334	5,435	504	3,023	1,813	1,336
1984	25,363	11,219	409	325	5,790	548	3,410	2,122	1,541
1985	26,130	11,601	404	324	5,958	556	3,526	2,283	1,479
1986	27,150	12,000	371	330	6,291	587	3,686	2,328	1,556
1987	29,342	12,848	337	325	7,017	814	3,899	2,417	1,684
1988	29,973	13,198	332	301	6,684	1,090	4,034	2,538	1,796
1989	30,708	13,502	343	287	6,738	1,143	4,055	2,654	1,986
1990	31,013	13,628	351	282	6,800	1,138	4,166	2,655	1,992
1991	31,508	14,210	295	250	6,650	999	4,276	2,682	2,145
1992	32,206	14,557	284	173	6,767	1,095	4,353	2,606	2,370
1993	33,298	14,963	263	140	6,996	1,120	4,645	2,692	2,478
1994	34,289	15,469	264	143	7,376	884	4,832	2,706	2,615
1995	35,193	15,900	261	153	7,442	945	4,921	2,839	2,731
1996	35,901	16,299	242	154	7,467	858	5,109	3,118	2,654
					Public universities				
1977	$15,155	$2,487	$439	$7,948	$2,581	$322	$714	$107	$557
1978	15,410	2,514	463	8,095	2,567	331	747	151	540
1979	16,025	2,556	474	8,355	2,710	364	758	167	643
1980	15,898	2,525	406	8,240	2,760	341	790	179	656
1981	15,479	2,543	355	7,945	2,675	349	778	170	663
1982	15,141	2,659	321	7,789	2,391	327	810	173	671
1983	15,163	2,877	310	7,624	2,276	319	890	187	679
1984	15,662	2,997	311	7,929	2,326	297	903	207	692
1985	16,463	3,012	351	8,427	2,434	327	976	217	719
1986	17,099	3,186	351	8,629	2,530	345	1,062	243	754
1987	17,113	3,330	321	8,438	2,567	419	1,092	178	768
1988	17,597	3,492	263	8,578	2,712	430	1,164	175	784
1989	17,924	3,584	268	8,553	2,790	463	1,253	186	827
1990	18,014	3,668	252	8,426	2,808	515	1,325	189	831
1991	17,989	3,794	248	8,194	2,875	532	1,296	192	858
1992	18,173	4,050	245	7,811	3,042	513	1,367	227	918
1993	18,661	4,340	248	7,716	3,218	511	1,445	238	944
1994	18,039	4,526	248	7,681	3,358	572	1,466	234	909
1995	19,424	4,668	239	7,823	3,430	594	1,471	246	952
1996	19,629	4,825	225	7,768	3,379	637	1,551	279	964

Table 39-2 General education revenues of higher education institutions per full-time-equivalent (FTE) student (in constant 1995–96 dollars), by revenue source and control and type of institution: Academic years ending 1977–96—Continued

Academic year ending	Total	Tuition and fees*	Federal appro-priations	State and local appro-priations	Federal grants and contracts	State and local grants and contracts	Private gifts	Endow-ment	Sales and services of educational activities
					Private, not-profit 4-year colleges				
1977	$11,258	$6,945	$105	$235	$1,218	$228	$1,758	$658	$110
1978	11,166	6,978	109	220	1,176	225	1,698	644	116
1979	11,292	7,021	114	213	1,243	224	1,661	697	118
1980	11,612	7,087	121	215	1,340	264	1,684	770	130
1981	11,583	7,137	125	217	1,238	263	1,662	804	137
1982	11,663	7,353	99	204	1,076	266	1,657	889	120
1983	11,868	7,672	73	205	915	280	1,714	888	122
1984	12,175	7,918	67	205	932	288	1,733	896	136
1985	12,599	8,170	68	201	964	315	1,801	948	132
1986	12,953	8,402	63	206	1,015	337	1,830	964	137
1987	13,725	8,947	76	222	1,009	399	1,930	994	147
1988	14,026	9,193	76	230	1,038	429	1,884	1,025	150
1989	14,216	9,383	61	192	1,013	515	1,843	1,060	150
1990	14,477	9,684	54	179	1,026	545	1,788	1,056	144
1991	14,573	9,919	54	167	992	513	1,756	1,034	138
1992	14,889	10,255	55	124	1,039	609	1,706	961	141
1993	15,126	10,474	40	108	1,069	574	1,712	922	226
1994	15,495	10,786	34	110	1,092	618	1,729	891	236
1995	15,894	11,111	34	85	1,137	593	1,844	932	158
1996	16,458	11,337	32	86	1,084	613	2,057	1,076	171
					Public 4-year colleges				
1977	$11,384	$1,865	$559	$6,907	$1,322	$236	$270	$36	$188
1978	11,497	1,838	560	7,061	1,257	254	288	28	210
1979	11,863	1,806	584	7,313	1,327	276	294	34	230
1980	11,990	1,785	604	7,372	1,353	267	311	41	256
1981	11,780	1,808	628	7,168	1,289	262	314	46	265
1982	11,725	1,892	546	7,212	1,137	251	344	50	293
1983	11,406	1,943	545	6,983	988	245	369	46	287
1984	11,559	2,104	542	6,911	987	266	385	49	316
1985	12,274	2,161	563	7,451	1,015	263	420	50	349
1986	12,702	2,243	542	7,627	1,071	326	459	54	379
1987	12,478	2,245	539	7,333	1,045	373	470	60	414
1988	12,684	2,336	539	7,412	1,056	363	467	62	449
1989	12,511	2,401	352	7,264	1,075	375	513	69	461
1990	12,422	2,443	526	6,910	1,068	392	537	69	478
1991	11,891	2,458	455	6,401	1,061	406	569	40	499
1992	12,122	2,703	439	6,220	1,136	444	598	73	508
1993	12,483	2,968	428	6,105	1,224	503	615	89	553
1994	12,642	3,083	457	6,013	1,277	533	629	74	576
1995	13,098	3,163	445	6,147	1,358	639	651	76	620
1996	13,133	3,263	459	6,021	1,399	726	668	57	540

Table 39-2 General education revenues of higher education institutions per full-time-equivalent (FTE) student (in constant 1995–96 dollars), by revenue source and control and type of institution: Academic years ending 1977–96—Continued

Academic year ending	Total	Tuition and fees*	Federal appropriations	State and local appropriations	Federal grants and contracts	State and local grants and contracts	Private gifts	Endowment	Sales and services of educational activities
Public 2-year colleges									
1977	$6,057	$1,018	$120	$4,393	$349	$119	$31	$4	$24
1978	6,065	977	108	4,447	335	139	30	4	25
1979	6,191	979	120	4,500	372	154	29	4	32
1980	6,104	983	82	4,429	385	159	29	5	31
1981	5,822	979	72	4,176	364	163	29	6	32
1982	5,756	1,034	63	4,127	301	165	31	7	28
1983	5,386	1,039	44	3,847	233	156	30	8	29
1984	5,522	1,077	47	3,923	242	162	33	8	29
1985	6,012	1,147	45	4,264	278	204	37	8	30
1986	6,267	1,165	38	4,472	281	229	39	8	35
1987	6,361	1,177	47	4,481	264	307	40	9	36
1988	6,210	1,162	45	4,378	252	290	44	6	33
1989	6,394	1,220	42	4,394	268	381	50	6	31
1990	6,244	1,221	41	4,230	262	395	53	7	34
1991	6,230	1,274	43	4,202	260	356	56	6	33
1992	6,062	1,337	50	3,953	274	349	59	6	33
1993	6,145	1,438	37	3,916	309	334	60	6	45
1994	6,389	1,522	38	4,028	337	346	63	6	49
1995	6,560	1,534	33	4,134	359	372	72	8	47
1996	6,782	1,574	30	4,169	378	502	73	8	49

* Federally supported student aid received through students (e.g., Federal Student Loan Programs) is included under tuition and fees.

NOTE: The Higher Education Price Index (HEPI) was used to calculate constant dollars. Data for academic years 1976–77 through 1985–86 include only institutions that provided both enrollment and finance data. FTE students include both undergraduate and graduate students. Data for 1989 to 1995 were revised from previously published figures. Details may not add to totals due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Higher Education General Information Survey (HEGIS) "Financial Statistics of Institutions of Higher Education" survey and Integrated Postsecondary Education Data System (IPEDS) "Institutional Characteristics," "Financial Statistics," and "Fall Enrollment" surveys.

Table 40-1 Percentage distribution of educational and general expenditures of higher education institutions per full-time-equivalent (FTE) student, by expenditure categories and control and type of institution: Academic years ending 1977–96

Academic year ending	Total	Instruction	Administration[1]	Student services	Research	Libraries	Public service	Operation and maintenance of plant	Scholarships and fellowships	Mandatory transfers
					Private universities					
1977	100.0	38.0	13.2	3.3	21.1	4.2	2.2	8.8	8.1	1.1
1978	100.0	37.9	13.4	3.4	20.8	4.2	2.1	8.7	8.4	1.1
1979	100.0	37.4	14.0	3.4	20.7	3.9	2.1	9.0	8.1	1.3
1980	100.0	37.9	14.2	3.4	20.5	3.7	2.3	8.9	7.9	1.3
1981	100.0	38.1	13.9	3.5	19.8	3.7	2.1	9.1	8.2	1.5
1982	100.0	39.1	13.8	3.6	18.9	3.7	2.0	9.5	8.2	1.2
1983	100.0	39.4	14.8	3.7	17.9	3.6	2.1	9.2	8.2	1.2
1984	100.0	38.6	15.2	3.7	17.7	3.8	2.0	9.1	8.8	1.2
1985	100.0	38.0	14.9	3.8	18.1	3.5	2.4	8.9	8.9	1.4
1986	100.0	37.8	15.0	3.8	18.5	3.5	2.4	8.6	9.1	1.3
1987	100.0	38.4	15.2	3.9	18.4	3.1	2.6	7.7	9.4	1.4
1988	100.0	37.5	15.2	3.8	18.7	3.5	2.5	7.7	9.6	1.5
1989	100.0	38.0	15.2	3.7	18.4	3.4	2.5	7.5	9.7	1.6
1990	100.0	37.8	14.7	3.7	18.6	3.4	2.5	7.5	9.9	1.8
1991	100.0	38.3	14.8	3.8	17.8	3.2	2.6	7.8	10.3	1.6
1992	100.0	38.2	14.8	3.7	17.4	3.2	2.5	7.5	11.1	1.6
1993	100.0	38.4	14.1	3.5	17.9	3.2	2.7	7.3	11.4	1.7
1994	100.0	38.5	13.9	3.6	17.7	3.2	2.8	7.3	11.4	1.8
1995	100.0	38.3	13.7	3.6	17.9	3.3	2.7	7.1	11.6	1.9
1996[2]	100.0	37.4	15.3	3.8	17.6	3.2	2.6	6.9	11.4	1.8
					Public universities					
1977	100.0	39.0	13.0	3.7	18.4	3.5	8.1	9.1	4.0	1.2
1978	100.0	39.2	13.2	3.8	18.6	3.4	7.9	9.2	3.8	1.0
1979	100.0	39.1	13.1	3.7	18.9	3.2	8.2	9.3	3.5	1.0
1980	100.0	38.8	12.5	3.8	19.5	3.7	8.1	9.2	3.5	1.0
1981	100.0	38.5	12.9	3.8	19.7	3.2	8.3	9.1	3.5	1.0
1982	100.0	38.8	13.1	3.8	19.3	3.2	8.1	9.4	3.5	0.9
1983	100.0	38.8	13.1	3.8	19.2	3.3	8.1	9.4	3.5	0.9
1984	100.0	38.6	13.1	3.7	19.1	3.3	8.0	9.4	3.6	1.0
1985	100.0	38.3	13.7	3.7	19.4	3.2	8.0	9.2	3.6	0.9
1986	100.0	37.7	13.9	3.7	19.7	3.2	8.0	8.8	3.8	1.2
1987	100.0	38.0	14.0	3.7	20.0	3.1	7.8	8.3	3.8	1.2
1988	100.0	37.3	13.9	3.7	20.6	3.2	7.8	8.1	4.0	1.4
1989	100.0	36.8	13.9	3.7	21.0	3.1	8.0	7.9	4.2	1.3
1990	100.0	36.6	13.8	3.7	21.4	3.1	8.1	7.8	4.3	1.4
1991	100.0	36.3	13.7	3.6	21.7	3.0	8.2	7.6	4.5	1.4
1992	100.0	36.0	13.3	3.7	22.0	3.0	8.3	7.4	4.9	1.5
1993	100.0	35.7	13.1	3.7	22.3	2.9	8.3	7.2	5.3	1.5
1994	100.0	35.3	13.3	3.7	22.4	2.9	8.1	7.2	5.6	1.5
1995	100.0	35.4	13.3	3.7	22.3	3.0	8.1	7.0	5.7	1.5
1996[2]	100.0	35.3	13.7	3.8	21.8	3.0	8.2	6.9	5.9	1.5

Table 40-1 Percentage distribution of educational and general expenditures of higher education institutions per full-time-equivalent (FTE) student, by expenditure categories and control and type of institution: Academic years ending 1977–96—Continued

Academic year ending	Total	Instruction	Administration[1]	Student services	Research	Libraries	Public service	Operation and maintenance of plant	Scholarships and fellowships	Mandatory transfers
Private 4-year colleges										
1977	100.0	37.3	20.4	7.4	5.0	3.9	2.4	11.2	10.0	2.3
1978	100.0	37.5	20.6	7.6	4.8	3.9	2.2	11.3	9.8	2.3
1979	100.0	37.2	20.7	7.7	5.2	3.8	2.2	11.2	9.6	2.3
1980	100.0	36.7	20.8	7.8	5.3	3.7	2.2	11.4	9.8	2.4
1981	100.0	36.1	21.1	7.9	5.1	3.6	2.3	11.5	10.1	2.3
1982	100.0	36.1	21.4	8.0	4.6	3.6	2.5	11.4	10.1	2.2
1983	100.0	36.2	21.7	8.2	4.5	3.6	2.4	11.1	10.0	2.2
1984	100.0	36.0	21.6	8.2	4.4	3.6	2.4	10.9	10.6	2.2
1985	100.0	35.6	21.7	8.3	4.6	3.5	2.4	10.6	11.1	2.3
1986	100.0	35.1	21.7	8.3	4.8	3.5	2.6	10.2	11.5	2.3
1987	100.0	34.3	22.8	8.3	4.9	2.9	2.7	9.7	12.1	2.2
1988	100.0	34.1	22.1	8.4	5.0	3.2	3.0	9.5	12.8	2.0
1989	100.0	33.8	22.2	8.5	5.0	3.1	2.9	9.4	12.9	2.2
1990	100.0	33.5	21.9	8.5	4.9	3.1	3.1	9.1	13.6	2.2
1991	100.0	33.4	22.2	8.7	4.4	2.9	3.1	8.9	14.2	2.2
1992	100.0	33.1	21.4	8.7	4.3	3.0	3.2	8.6	15.7	2.1
1993	100.0	32.8	20.7	8.7	4.4	2.9	3.5	8.5	16.5	2.1
1994	100.0	32.3	20.6	8.7	4.4	2.9	3.5	8.4	17.1	2.1
1995	100.0	32.3	20.1	8.7	4.3	2.8	3.9	8.1	17.6	2.2
1996[2]	100.0	32.6	20.3	8.8	4.2	2.8	3.8	8.1	17.7	1.9
Public 4-year colleges										
1977	100.0	46.4	16.7	5.8	7.0	3.9	2.9	11.5	3.9	2.0
1978	100.0	46.2	16.7	6.0	7.1	3.9	2.9	11.7	3.5	2.1
1979	100.0	45.6	17.1	6.2	7.5	3.8	2.9	11.6	3.2	2.0
1980	100.0	44.9	17.3	6.2	8.0	3.8	3.1	11.7	3.3	1.8
1981	100.0	44.8	17.2	6.1	7.9	3.9	3.1	11.9	3.1	1.8
1982	100.0	45.7	17.6	5.8	7.6	3.7	3.1	12.1	2.8	1.6
1983	100.0	45.7	17.4	5.9	7.5	3.7	3.1	12.1	2.9	1.7
1984	100.0	45.1	18.2	6.3	7.5	3.8	3.1	11.3	2.9	1.7
1985	100.0	44.8	18.4	6.2	7.7	3.7	3.3	11.7	2.7	1.6
1986	100.0	45.0	18.4	6.2	8.2	3.6	3.3	10.7	2.9	1.8
1987	100.0	44.7	18.7	6.1	8.6	3.2	3.6	10.4	3.1	1.6
1988	100.0	44.6	18.4	6.2	8.9	3.3	3.7	10.1	3.1	1.6
1989	100.0	44.6	18.2	6.1	9.4	3.3	3.8	9.9	3.1	1.6
1990	100.0	44.4	18.7	6.1	9.3	3.3	4.0	9.6	3.2	1.6
1991	100.0	44.3	18.6	6.2	9.5	3.1	4.0	9.4	3.3	1.5
1992	100.0	43.2	18.9	6.1	9.7	3.1	4.3	9.1	4.1	1.6
1993	100.0	42.0	19.4	6.5	9.8	3.0	4.4	8.9	4.4	1.6
1994	100.0	42.1	18.8	6.2	10.1	3.0	4.4	8.9	4.9	1.6
1995	100.0	41.8	18.8	6.1	10.1	3.0	4.5	8.7	5.1	1.9
1996[2]	100.0	40.9	19.7	5.8	10.1	2.9	4.6	8.7	5.4	1.8

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Table 40-1 Percentage distribution of educational and general expenditures of higher education institutions per full-time-equivalent (FTE) student, by expenditure categories and control and type of institution: Academic years ending 1977–96—Continued

Academic year ending	Total	Instruction	Administration[1]	Student services	Research	Libraries	Public service	Operation and maintenance of plant	Scholarships and fellowships	Mandatory transfers
					Public 2-year colleges					
1977	100.0	51.1	18.1	8.4	0.3	3.5	2.0	11.2	2.9	2.4
1978	100.0	50.6	19.4	8.2	0.2	3.5	2.1	11.3	2.2	2.4
1979	100.0	50.2	19.5	8.4	0.4	3.4	1.9	11.3	2.2	2.6
1980	100.0	50.3	19.0	8.6	0.4	3.2	2.2	11.7	2.3	2.2
1981	100.0	50.6	19.1	8.7	0.4	3.1	2.2	12.0	2.3	1.7
1982	100.0	50.9	19.0	8.8	0.2	3.4	1.9	12.3	2.1	1.5
1983	100.0	50.9	19.5	8.9	0.2	3.0	1.5	12.3	2.1	1.6
1984	100.0	50.8	19.8	8.8	0.2	3.0	1.7	12.2	2.0	1.5
1985	100.0	50.3	20.2	8.8	0.2	2.9	2.0	12.1	2.2	1.4
1986	100.0	49.9	20.7	9.0	0.1	2.9	2.0	11.9	2.2	1.4
1987	100.0	49.6	21.8	9.4	0.1	2.3	2.2	11.5	2.2	0.8
1988	100.0	49.2	21.3	9.9	0.1	2.7	2.3	11.4	2.4	0.8
1989	100.0	49.6	21.5	9.5	0.1	2.6	2.5	11.2	2.4	0.7
1990	100.0	49.8	21.5	9.7	0.1	2.5	2.4	11.0	2.3	0.7
1991	100.0	49.9	21.6	9.9	0.1	2.5	2.4	10.7	2.4	0.6
1992	100.0	50.3	20.9	10.2	0.2	2.4	2.2	10.4	2.8	0.6
1993	100.0	50.1	20.9	10.4	0.2	2.3	2.3	10.1	3.1	0.6
1994	100.0	49.4	21.0	10.4	0.2	2.3	2.4	10.3	3.4	0.7
1995	100.0	49.0	21.0	10.5	0.2	2.2	2.3	10.2	3.7	0.7
1996[2]	100.0	48.1	21.6	10.7	0.1	2.2	2.3	10.3	3.9	0.8

[1] Includes institutional and academic support. Libraries were excluded.

[2] Preliminary data.

NOTE: Data for academic years 1976–77 through 1985–86 include only institutions that provided both enrollment and finance data. FTE students include both undergraduate and graduate students. Details may not add to 100.0 due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics 1998*, tables 338–342, (based on the IPEDS "Institutional Characteristics," "Financial Statistics," and "Fall Enrollment" surveys).

International comparisons of education expenditures

The purpose of this indicator is to compare expenditures for education in public and private institutions to Gross Domestic Product (GDP).

Definitions

Public education expenditures include funds provided both to public and private schools by federal, state, and local governments either directly or through students. This includes expenditures at public schools funded by public sources and subsidies from government agencies to students at private schools from government agencies.

Private education expenditures are expenditures financed by private sources—households, private nonprofit institutions, businesses, and corporations. This includes expenditures supported by public and private school tuition and fees, such as student expenses for books and materials.

Gross Domestic Product (GDP) is an aggregate measure of the value of goods and services produced in a country.

Expenditures in the United States

Elementary and secondary education

For the United States, *public expenditures for primary and secondary education* include expenditures in local public school districts and private schools; schools administered by religious organizations, funded by state and local taxes, federal programs administered by the U.S. Department of Education (ED); and federal programs operated outside of ED that are not administered by state or local education agencies (e.g., Head Start, Department of Defense Schools, and schools operated by the Bureau of Indian Affairs).

Also included in public expenditures for primary and secondary education are federal expenditures to operate ED and activities such as research, statistics, assessment, and school improvement, and state expenditures to operate state departments of education and other direct state expenditures, including state schools for the deaf and blind and reform schools.

For the United States, elementary education includes education provided to students in grades 1–6; secondary education covers grades 7– 12.

Some expenditures, such as those for federal or state agency administration and those for non-graded special education programs, cannot be assigned to particular grade levels, because the expenditures defy strict grade-level categorizations. The United States, like some other countries, has chosen to prorate these expenditures over the grade levels based on the relative size of enrollments, staffing, and teacher salaries. However, other countries have chosen not to allocate such expenditures, classifying them, instead, as "undistributed."

Higher education

Public expenditures for higher education in the United States include expenditures at both public and private colleges and universities funded by federal, state, and local governments. The Integrated Postsecondary Education Data System (IPEDS), the core postsecondary education data collection program for the National Center for Education Statistics (NCES), gathers institutional reports for revenue received by both public and private institutions from both public and private sources. Expenditures by public and private nonprofit institutions are separated into public and private expenditures based on their relative shares of current fund revenues.

Most federal aid goes to students who then spend it on education (e.g., tuition) and noneducation (room and board) services. For the purposes of calculating public expenditures for higher education in the United States, it was assumed that students spent 60 percent of federally administered Pell grants on education.

With the exception of Pell grant money, public expenditures for less-than-2-year public and private institutions, often called "proprietary" schools, were not available; therefore, the amount for *public expenditures for higher education* in the United States are biased downward. However, since the students participating in these institutions are also excluded from higher education enrollments, the estimate of *public expenditures per student* would be biased upward if the per-student public expenditures in less-than-2-year institutions were less than those in other higher education institutions.

Private expenditures

For the United States, as in other Organisation for Economic Co-operation and Development (OECD) countries, *private expenditures* refer to expenditures funded by private sources—mainly households, private nonprofit institutions, and firms and businesses. These include school fees; materials such as textbooks and teaching equipment; transport to school (if organized by the school); meals (if provided by the school); boarding fees; and expenditures by employers for initial vocational training.

How expenditures are compared across countries

To compare expenditures per student in the United States to expenditures per student in other countries, expenditures must be denominated in a common currency. Conversion of other countries' expenditures to U.S. dollars facilitates comparison with expenditures in the United States. There are at least two methods of conversion: 1) market exchange rates, and 2) Purchasing Power Parity (PPP) indices.

The market exchange rate is the rate at which an individual can exchange the currencies of two countries. It is determined by relative confidence in the governments, their monetary systems, and the economies of the two countries and by the relative demand for the goods and services that the two countries trade. Market exchange rates can be highly volatile.

PPP indices are calculated by comparing the cost of a fixed market basket of goods in each country. Changes over time in a PPP index are determined by the rates of inflation in each country. Since PPP indices are less volatile than market exchange rates, they were used here to adjust expenditures and GDP figures.

Because the fiscal year has a different starting month in different countries, within-country GDP consumer price deflators from the OECD National Accounts database were used to adjust education expenditures when the national fiscal year did not coincide with the calendar year 1994.

Even when expenditures are expressed in common currencies, comparing national expenditures can be difficult because the data are dependent on numerous factors, including the size of the economy, the population, and enrollment rates. In addition, the coverage and character of the education expenditure data that countries submit to the OECD vary. For a detailed examination of some of the problems that exist in comparing education expenditures across countries, see *Education at a Glance: OECD Indicators,* 1998, published by the OECD Center for Educational Research and Innovation.

SOURCE: Organisation for Economic Co-operation and Development, Center for Educational Research and Innovation, *Education at a Glance: OECD Indicators*, 1998.

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Table 42-1 Percentage distribution of full-time, full-year undergraduates in each academic year according to loan package, by dependency status: 1992–93 and 1995–96*

	Total		Dependency status			
			Dependent		Independent	
Type of loan	1992–93	1995–96	1992–93	1995–96	1992–93	1995–96
Subsidized only	26.1	26.2	25.0	27.7	29.1	22.0
Subsidized and unsubsidized	3.5	10.6	0.7	5.8	10.7	24.3
Unsubsidized only	0.3	5.5	0.1	6.4	0.8	2.8
No federal student loan	70.0	57.8	74.3	60.2	59.4	50.9

* In 1992–93, subsidized federal student loans were offered through the Stafford Loan Program and unsubsidized federal student loans through the Supplemental Loans for Students (SLS) program. In 1995–96, both subsidized and unsubsidized federal student loans were offered through the Stafford Federal Loan Program.

NOTE: Details may not add to 100.0 due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1992–93 and 1995–96.

Trends in student borrowing: Subsidized and unsubsidized Stafford Loans

Prior to the 1992 Reauthorization of the Higher Education Act, the Student Loan Program consisted only of subsidized loans, in which the federal government paid the interest while the students were enrolled in a postsecondary institution. Independent undergraduates could receive unsubsidized loans (which accrued interest while the students were enrolled) through the federal Supplemental Loans for Students (SLS) program, which was available to dependent students only on an exceptional basis. Before 1993–94, however, the percentage of students borrowing from the SLS program was small. In 1993–94, SLS was replaced by unsubsidized Stafford loans, whose target population was expanded to include dependent as well as independent students. Both types of Stafford loans are offered through the Federal Family Education Loan Program (administered by banks and other lending institutions), and the Direct Student Loan Program (administered by postsecondary institutions).

The maximum amounts of unsubsidized federal student loans that may be borrowed vary with dependency status and class level. In 1995–96, dependent undergraduates could borrow up to $2,625 in the first year, $3,500 in the second year, and $5,500 in the third and following years. The limits were higher for independent undergraduates, who could borrow up to $4,000 in the first and second years, and $5,000 in the third and following years.

The data in this indicator are for full-time, full-year undergraduates. Thirty-five percent of undergraduates attended full time, full year in 1992–93, while 38 percent did so in 1995–96.

Income quartiles are based on the distribution of all dependent or independent students, while the tables are limited to a subset of full-time, full-year students. In 1993, the 25th, 50th, and 75th percentiles for all dependent students corresponded to family incomes of $26,976, $44,246, and $59,839. The values for all independent students in 1993 were $9,920, $20,735, and $35,510.

In 1996, the 25th, 50th, and 75th percentiles for all dependent students corresponded to family incomes of $25,100, $46,838, and $71,134. The values for all independent students in 1996 were $8,252, $19,125, and $34,975.

Table 43-1 Percentage of full-time, full-year graduate and first-professional students with various types of aid, percentage who worked while enrolled, and average hours worked per week while enrolled, by degree program and type of institution: Academic year 1995–96

Degree program and type of institution	Any aid	Any grants[1]	Tuition waiver[2]	Any loans	Any assistantships	Worked while enrolled	Average hours worked per week[3]
Total[4]	**76.1**	**40.4**	**11.7**	**48.7**	**19.5**	**63.7**	**26.1**
Master's degree[4]	72.2	39.9	13.1	43.1	19.6	71.6	27.7
Public	74.7	39.2	17.8	39.5	28.9	74.3	26.5
Private, not-for-profit	69.4	42.1	6.7	48.6	6.6	66.3	28.0
Doctor's degree[4]	81.5	48.0	22.8	27.2	48.7	70.2	28.6
Public	85.9	48.5	30.9	26.7	59.9	82.3	26.6
Private, not-for-profit	77.5	54.9	12.4	22.6	37.3	53.0	33.0
First-professional degree[4,5]	83.2	38.7	3.0	74.4	4.0	44.1	20.7
Public	85.7	42.8	3.8	79.0	4.1	37.5	20.2
Private, not-for-profit	81.0	35.2	2.4	70.6	3.8	49.0	20.9

[1] Grants include scholarships, fellowships, tuition waivers, and employer aid (forms of aid that do not have to be repaid).

[2] Also included in the "Any grants" column.

[3] For students who worked.

[4] Total includes students in graduate programs other than master's, doctor's, and first-professional. Total and degree program totals include students in private, for-profit institutions.

[5] First-professional programs include medicine, chiropractic, dentistry, optometry, osteopathic medicine, pharmacy, podiatry, veterinary medicine, law, and theology.

NOTE: Twenty-six percent of master's students, 46 percent of doctor's students, and 81 percent of first-professional students were enrolled full time, full year.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1995–96, Graduate Data Analysis System.

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Table 43-2 Average amount of aid received by graduate and first-professional students with various types of aid, by type of aid, degree program, and type of institution: Academic year 1995–96

Degree program and type of institution	Any aid	Any grants[1]	Tuition waiver[2]	Any loans	Any assistantships
			All students		
Total[3]	**$9,814**	**$3,931**	**$3,187**	**$11,946**	**$7,002**
Master's degree[3]	7,825	3,476	2,901	9,902	6,106
Public	7,007	2,931	2,724	8,174	6,243
Private, not-for-profit	9,140	4,222	3,326	11,990	5,289
Doctor's degree[3]	11,483	6,055	3,426	9,870	8,554
Public	10,116	4,241	3,154	8,449	8,195
Private, not-for-profit	14,070	9,393	—	11,186	9,725
First-professional degree[3,4]	17,357	4,611	3,745	16,500	6,118
Public	16,157	4,427	3,144	14,497	5,231
Private, not-for-profit	18,287	4,772	4,471	18,207	7,152
			Full-time, full-year students		
Total[3]	**$14,362**	**$5,968**	**$4,220**	**$13,748**	**$7,334**
Master's degree[3]	12,143	5,738	3,991	11,511	6,242
Public	10,391	4,974	3,675	9,431	6,273
Private, not-for-profit	15,277	6,947	—	14,242	—
Doctor's degree[3]	13,690	7,825	3,622	10,346	8,749
Public	11,862	5,527	3,142	8,712	8,143
Private, not-for-profit	17,333	11,487	—	12,495	10,483
First-professional degree[3,4]	18,285	4,813	4,219	16,929	5,766
Public	16,262	4,413	3,503	14,642	—
Private, not-for-profit	20,067	5,218	—	19,059	—

— Too few sample observations for a reliable estimate.

[1] Grants include scholarships, fellowships, tuition waivers, and employer aid (forms of aid that do not have to be repaid).

[2] Also included in the "Any grants" column.

[3] Total includes students in graduate programs other than master's, doctor's, and first-professional. Total and degree program totals include students in private, for-profit institutions.

[4] First-professional programs include medicine, chiropractic, denistry, optometry, osteopathic medicine, pharmacy, podiatry, veterinary medicine, law, and theology.

NOTE: Twenty-six percent of master's students, 46 percent of doctoral students, and 81 percent of first-professional students were enrolled full time, full year.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1995–96, Graduate Data Analysis System.

Table 44-1 Percentage of 3-, 4-, and 5-year-olds enrolled in center-based programs, kindergarten, or center-based programs and kindergarten,[1] by selected student characteristics: 1995

Selected student characteristics	3-year-olds				4-year-olds				5-year-olds			
	Total[2]	Center-based programs	Kindergarten	Center-based and kindergarten[3]	Total	Center-based programs	Kindergarten	Center-based and kindergarten[3]	Total	Center-based programs	Kindergarten	Center-based and kindergarten[3]
Total	**41.0**	**40.5**	—	—	**65.4**	**63.7**	**1.2**	**0.5**	**93.2**	**19.8**	**61.3**	**12.2**
Sex												
Male	39.6	39.3	—	—	65.1	63.5	0.9	0.7	92.8	21.8	58.1	12.9
Female	42.4	41.7	—	—	65.6	63.9	1.5	0.2	93.8	17.5	64.9	11.4
Race–ethnicity												
White	44.0	43.7	—	—	65.8	64.4	1.0	0.3	92.6	21.8	58.5	12.3
Black	44.6	43.7	—	—	72.9	70.8	2.0	0.0	94.5	18.0	62.7	13.8
Hispanic	22.4	21.3	—	—	50.1	46.6	1.6	1.9	93.2	13.0	74.1	6.1
Other	[4]32.9	[4]32.9	—	—	[4]71.6	[4]70.2	0.7	0.7	98.4	[4]16.5	[4]60.9	[4]21.1
Household income												
$10,000 or less	31.7	31.3	—	—	61.5	60.8	0.4	0.3	94.5	20.3	66.5	7.7
10,001–20,000	31.6	31.6	—	—	57.0	54.7	1.5	0.7	90.7	13.7	66.7	10.3
20,001–35,000	32.7	32.2	—	—	52.9	51.7	0.5	0.8	92.2	16.8	63.6	11.8
35,001–50,000	40.7	39.4	—	—	63.5	60.5	2.8	0.2	89.1	17.1	60.5	11.5
50,001 or more	62.1	62.0	—	—	84.5	83.1	1.1	0.4	97.3	26.6	53.6	17.0
Parents' highest education level												
Less than high school diploma	19.9	18.6	—	—	[4]44.9	[4]44.1	0.8	0.0	93.8	13.1	74.6	6.1
High school diploma or GED	29.3	28.7	—	—	56.7	55.6	0.5	0.6	91.7	16.9	64.6	10.2
Some college/vocational/technical	40.6	40.3	—	—	65.6	63.7	1.6	0.4	92.3	18.3	62.0	12.0
Bachelor's degree	55.1	55.0	—	—	76.6	74.4	2.2	0.0	96.2	23.6	55.8	16.9
Graduate/professional school	[4]62.6	[4]62.2	—	—	83.3	81.0	1.1	1.2	94.8	29.5	49.6	15.7
Family structure												
Two biological or adoptive parents	41.1	40.5	—	—	65.5	63.8	1.3	0.4	92.1	20.9	60.6	10.6
One biological or adoptive parent	43.6	43.6	—	—	65.8	64.4	0.9	0.5	95.4	17.2	60.6	17.6
One biological/adoptive and one stepparent	[4]23.1	[4]20.4	—	—	[4]60.7	[4]57.7	2.1	0.9	94.3	17.1	69.6	7.6
Other relatives	[4]18.9	[4]18.9	—	—	[4]66.9	[4]66.9	0.0	0.0	97.0	[4]29.7	[4]61.9	5.4
Mother's first language												
English	43.3	42.9	—	—	66.9	65.7	0.9	0.3	93.4	20.7	60.3	12.4
Spanish	16.5	15.8	—	—	44.9	39.7	2.5	2.8	93.1	10.7	77.1	5.3
Other	[4]40.0	[4]37.0	—	—	[4]68.0	[4]62.7	5.3	0.0	88.8	21.0	[4]57.1	10.7
Poverty status[5]												
Poor	29.7	29.4	—	—	56.5	55.7	0.6	0.2	93.6	18.0	68.1	7.5
Nonpoor	45.5	45.0	—	—	68.5	66.5	1.4	0.6	93.1	20.4	58.9	13.9
Mother's employment status												
35 hours or more per week	48.2	47.5	—	—	[4]69.5	67.3	1.1	1.2	93.7	19.9	51.7	22.1
Less than 35 hours per week	44.2	44.2	—	—	74.6	72.5	1.8	0.2	94.5	23.1	59.8	11.6
Looking for work	[4]44.7	[4]43.3	—	—	57.8	[4]56.8	1.0	0.0	88.1	[4]18.7	[4]61.4	8.0
Not in labor force	31.7	31.4	—	—	[4]56.7	55.6	1.1	0.0	92.8	18.4	71.7	2.7

— Too few observations for a reliable estimate.

[1] See the glossary for definitions of center-based programs and kindergarten.

[2] Includes children enrolled in kindergarten and center-based programs and kindergarten.

[3] Due to survey format, dual enrollment may be underestimated. See the supplemental note to this indicator for further discussion.

[4] Interpret with caution; standard errors are large due to small sample size.

[5] The poverty measure presented in this analysis was developed by combining information about household composition and household income. See the supplemental note to this indicator for further explanations.

NOTE: Included in the total but not shown separately are children from other types of family structures. This analysis includes children ages 3–5 who were not enrolled in first grade. Age is as of December 31, 1994. Data are revised from previously published figures. Details may not add to totals due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), 1995 (Early Childhood Program Participation File).

Preprimary enrollment rates

Age of the child

In this analysis, the age of a child was calculated as of December 31, 1990 for 1991 data; December 31, 1992 for 1993 data; December 31, 1994 for 1995 data; and December 31, 1995 for 1996 data.

Enrollment rates

The numerator used to calculate the enrollment rates for this analysis is the number of 3-, 4-, and 5-year-olds who were enrolled in center-based programs or kindergarten, or both center-based programs and kindergarten (for the years 1991 and 1995) as of December 31, 1990, 1992, 1994, and 1995. The denominator used is the total number of children who were ages 3, 4, and 5 as of December 31, 1990, 1992, 1994, and 1995. Children who were enrolled in first grade or higher or who were in the "ungraded" category were excluded from this analysis.

In 1991 and 1995, the National Household Education Survey (NHES) allowed respondents to indicate whether a child was enrolled in both a center-based program and kindergarten (i.e., respondents were allowed to indicate whether a child was dually enrolled). For these two years, the supplemental tables to this indicator include center-based enrollment, kindergarten enrollment, and enrollment in both center-based programs and kindergarten.

In 1991 and 1995, respondents were only allowed to indicate if a child was dually enrolled only if the respondent first indicated that the child was enrolled in kindergarten. If a respondent first stated that a child was enrolled in a center-based program, the respondent was not allowed to indicate if the child was also enrolled in kindergarten. Due to this limitation in response options, dual enrollment may be underestimated.

Race–ethnicity

A child's race–ethnicity was determined by the composite of the National Household Education Survey (NHES) variables "race" and "Hispanic." If the child's ethnicity was Hispanic, he or she was classified as Hispanic, regardless of whether his or her race was classified as white, black, or other.

Parents' highest education level

"Parents' highest education level" is defined as the highest education level of the child's parents or nonparent guardians who resided in the household. Highest education level is based on the mother or female guardian or the highest education level of the father or male guardian. If only one parent resided in the household, that parent's highest education level was used.

Poverty measure

Children can be classified as below the poverty threshold (i.e., "poor") or above the poverty threshold (i.e., "not poor") using criteria for household size and income obtained from the Bureau of the Census and data from the NHES on household income and the number of persons living in the household for 1991, 1993, 1995, and 1996. In 1991 and 1993, household income data were collected in broad categories in the NHES. Therefore, it is not possible to determine a poverty threshold for these years with the same precision as in 1995 and 1996. The thresholds used to determine whether a child was "poor" or "not poor" differ by survey year. See table 1 for poverty thresholds for 1991, 1993, 1995, and 1996.

Table 1 **Weighted average poverty thresholds by household size: 1991, 1993, 1995, and 1996**

	Household size							
Survey	2	3	4	5	6	7	8	9 or more
NHES:91	$8,865	$10,860	$13,924	$16,456	$18,587	$21,058	$23,582	$27,942
NHES:93	9,414	11,522	14,763	17,449	19,718	22,383	24,838	29,529
NHES:95	9,933	12,158	15,569	18,408	20,804	23,552	26,267	31,280
NHES:96	10,233	12,516	16,036	18,952	21,389	24,268	27,091	31,971

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), 1991, 1993, 1995, and 1996.

Table 45-1 Elementary and secondary school enrollment (in thousands), by control and grade level of school, with projections: Fall 1970–2008

Fall of year	Total	Public schools Grades PreK–12	Grades PreK–8	Grades 9–12	Private schools[1] Grades PreK–12	Grades PreK–8	Grades 9–12
1970	51,257	45,894	32,558	13,336	5,363	4,052	1,311
1971	51,271	46,071	32,318	13,753	5,200	3,900	1,300
1972	50,726	45,726	31,879	13,848	5,000	3,700	1,300
1973	50,445	45,445	31,401	14,044	5,000	3,700	1,300
1974	50,073	45,073	30,971	14,103	5,000	3,700	1,300
1975	49,819	44,819	30,515	14,304	5,000	3,700	1,300
1976	49,478	44,311	29,997	14,314	5,167	3,825	1,342
1977	48,717	43,577	29,375	14,203	5,140	3,797	1,343
1978	47,637	42,551	28,463	14,088	5,086	3,732	1,353
1979	46,651	41,651	28,034	13,616	5,000	3,700	1,300
1980	46,208	40,877	27,647	13,231	5,331	3,992	1,339
1981	45,544	40,044	27,280	12,764	5,500	4,100	1,400
1982	45,166	39,566	27,161	12,405	5,600	4,200	1,400
1983	44,967	39,252	26,981	12,271	5,715	4,315	1,400
1984	44,908	39,208	26,905	12,304	5,700	4,300	1,400
1985	44,979	39,422	27,034	12,388	5,557	4,195	1,362
1986	45,205	39,753	27,420	12,333	5,452	4,116	1,336
1987	45,488	40,008	27,933	12,076	5,479	4,232	1,247
1988	45,430	40,189	28,501	11,687	5,241	4,036	1,206
1989	45,898	40,543	29,152	11,390	5,355	4,162	1,193
1990	46,448	41,217	29,878	11,338	5,232	4,095	1,137
1991	47,246	42,047	30,506	11,541	5,199	4,074	1,125
1992	48,198	42,823	31,088	11,735	5,375	4,212	1,163
1993	48,936	43,465	31,504	11,961	5,471	4,280	1,191
1994	49,707	44,111	31,898	12,213	5,596	4,360	1,236
1995	50,540	44,840	32,341	12,500	5,700	4,431	1,269
1996[2]	51,375	45,592	32,759	12,834	5,783	4,486	1,297
1997[3]	51,821	45,953	32,951	13,003	5,867	4,545	1,322
1998[3]	52,718	46,792	33,522	13,270	5,927	4,588	1,339
				Projected[4]			
1999	53,112	47,143	33,722	13,420	5,970	4,616	1,354
2000	53,445	47,439	33,903	13,537	6,006	4,640	1,366
2001	53,736	47,698	34,055	13,643	6,038	4,661	1,376
2002	53,987	47,924	34,124	13,800	6,063	4,671	1,392
2003	54,153	48,075	34,124	13,951	6,078	4,671	1,407
2004	54,308	48,221	33,958	14,263	6,087	4,648	1,439
2005	54,426	48,335	33,756	14,579	6,091	4,620	1,471
2006	54,457	48,368	33,584	14,785	6,088	4,597	1,491
2007	54,425	48,342	33,489	14,854	6,082	4,584	1,498
2008	54,268	48,201	33,455	14,746	6,067	4,579	1,488

[1] Beginning in fall 1980, data include estimates for the expanded universe of private schools.

[2] Estimates based on preliminary data.

[3] Projected.

[4] Enrollment includes students in kindergarten through grade 12 and some nursery school students.

NOTE: The private school enrollment figures for years 1971–75, 1979, 1981–82, 1984, and 1986 are estimated. The 1987 private school enrollment numbers are taken from the Private School Survey (PSS). Private school enrollment figures for grades preK–8 and 9–12 for the years 1988–93 are estimated from the preK–12 totals. Projections are based on data through 1995. Details may not add to totals due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1998*, table 3 (based on Common Core of Data) and *Projections of Education Statistics to 2008*, 1998, table 1.

Table 45-2 Public elementary and secondary school enrollment (in thousands), by region: Fall 1970–97

	United States	Northeast		Midwest		South		West	
Fall of year	Total number	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1970[1]	45,894	9,860	21.5	12,936	28.2	14,759	32.2	8,339	18.2
1971[1]	46,071	9,972	21.6	12,970	28.2	14,777	32.1	8,353	18.1
1972[1]	45,726	9,962	21.8	12,869	28.1	14,633	32.0	8,263	18.1
1973[1]	45,445	9,849	21.7	12,667	27.9	14,677	32.3	8,252	18.2
1974[1]	45,073	9,755	21.6	12,511	27.8	14,627	32.5	8,180	18.1
1975[1]	44,819	9,679	21.6	12,295	27.4	14,654	32.7	8,191	18.3
1976[1]	44,311	9,465	21.4	12,097	27.3	14,578	32.9	8,171	18.4
1977[1]	43,577	9,156	21.0	11,764	27.0	14,561	33.4	8,097	18.6
1978[1]	42,551	8,828	20.7	11,321	26.6	14,432	33.9	7,970	18.7
1979[1]	41,651	8,480	20.4	11,032	26.5	14,258	34.2	7,881	18.9
1980[1]	40,877	8,215	20.1	10,698	26.2	14,134	34.6	7,831	19.2
1981[1]	40,044	7,891	19.7	10,372	25.9	13,990	34.9	7,791	19.5
1982[1]	39,566	7,674	19.4	10,139	25.6	13,945	35.2	7,807	19.7
1983[1]	39,252	7,513	19.1	9,986	25.4	13,914	35.4	7,839	20.0
1984[1]	39,208	7,395	18.9	9,889	25.2	13,963	35.6	7,961	20.3
1985	39,422	7,318	18.6	9,862	25.0	14,117	35.8	8,124	20.6
1986	39,753	7,294	18.3	9,871	24.8	14,312	36.0	8,276	20.8
1987	40,008	7,252	18.1	9,870	24.7	14,419	36.0	8,468	21.2
1988	40,189	7,208	17.9	9,846	24.5	14,491	36.1	8,644	21.5
1989	40,543	7,200	17.8	9,849	24.3	14,605	36.0	8,889	21.9
1990	41,217	7,282	17.7	9,944	24.1	14,807	35.9	9,184	22.3
1991	42,047	7,407	17.6	10,080	24.0	[1]15,081	[1]35.9	9,479	22.5
1992	42,823	7,526	17.6	10,198	23.8	15,357	35.9	9,742	22.7
1993	43,465	7,654	17.6	10,289	23.7	15,591	35.9	9,931	22.8
1994	44,111	7,760	17.6	10,386	23.5	15,851	35.9	10,114	22.9
1995	44,840	7,894	17.6	10,512	23.4	16,118	35.9	10,316	23.0
1996[1]	45,592	7,986	17.5	10,564	23.2	16,374	35.9	10,596	23.2
1997[2]	45,953	8,037	17.5	10,735	23.4	16,537	36.0	10,641	23.2

[1] Revised from previously published figures.

[2] Data estimated by state education agencies.

NOTE: Details may not add to totals due to rounding. Enrollment includes students in kindergarten through grade 12 and some nursery school students. The regions of the United States used for this analysis were designated by the Bureau of the Census in the Current Population Survey (CPS). The regions and their states follow:

Northeast: Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont.

Midwest: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, Wisconsin.

South: Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, West Virginia.

West: Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics*, various years, table 40 (based on Common Core of Data).

Table 46-1 Percentage distribution of enrollment in public elementary and secondary schools, by race–ethnicity: 1976–96

Race–ethnicity	1976	1984	1986	1988	1990	1992*	1993*	1994*	1995*	1996*	1976–96
											Percentage point change
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	—
White	76.0	71.2	70.4	70.7	67.8	66.7	66.1	65.6	64.8	64.2	-11.8
Total minority	24.0	28.8	29.6	29.3	32.1	33.3	34.0	34.4	35.1	35.8	11.8
Black	15.5	16.2	16.1	15.2	16.2	16.5	16.6	16.7	16.8	16.9	1.4
Hispanic	6.4	9.1	9.9	10.1	11.5	12.3	12.7	13.0	13.5	14.0	7.6
Asian/Pacific Islander	1.2	2.5	2.8	3.1	3.4	3.5	3.6	3.6	3.7	3.8	2.5
American Indian/Alaskan Native	0.8	0.9	0.9	0.9	1.0	1.0	1.1	1.1	1.1	1.1	0.3

— Not applicable.

* Data are from the Common Core of Data (CCD) survey.

NOTE: Data shown in this table are taken from surveys other than the Current Population Survey (CPS) and are not comparable with the data in other tables of this analysis for this indicator. Enrollment includes kindergarten students and a small number of prekindergarten students. Details may not add to 100.0 due to rounding.

SOURCE: U.S. Department of Education, Office for Civil Rights, Elementary and Secondary School Civil Rights Survey, 1976, 1984, 1986, 1988, and 1990; National Center for Education Statistics, Common Core of Data Survey, 1992; and *Digest of Education Statistics, 1994, 1995, 1996, 1997,* and *1998,* table 45.

Table 47–1 Average percentage of white students in a minority student's school, by race–ethnicity and region:* Fall 1987–96

	Region				
Year	South	Border states	Northeast	Midwest	West
			In a black student's school		
1987	40.0	37.9	27.9	31.3	35.1
1988	39.6	38.0	26.7	31.5	35.7
1989	39.2	37.7	26.6	31.7	35.2
1990	39.0	37.5	26.4	31.6	34.9
1991	38.6	37.3	26.3	31.8	34.7
1992	38.2	36.8	26.2	31.5	34.3
1993	37.6	36.2	26.0	31.3	33.9
1994	37.1	35.7	25.8	31.1	33.5
1995	36.4	35.2	25.6	30.2	32.9
1996	35.9	34.6	25.2	29.6	32.3
Percentage point change	-4.1	-3.3	-2.7	-1.7	-2.8
			In a Hispanic student's school		
1987	29.2	58.1	27.2	48.2	35.5
1988	29.0	59.0	26.0	48.1	35.0
1989	28.9	57.7	26.2	47.8	33.7
1990	28.9	56.5	26.4	47.5	32.8
1991	28.7	56.0	26.5	47.3	32.2
1992	28.6	54.9	26.5	47.0	31.7
1993	28.6	54.0	26.4	46.8	31.1
1994	28.6	53.1	26.3	46.7	30.5
1995	28.4	52.4	26.1	46.1	29.8
1996	28.3	51.8	26.1	45.6	29.2
Percentage point change	-0.9	-6.3	-1.1	-2.6	-6.3
			In an Asian student's school		
1987	61.4	65.5	57.9	75.5	46.9
1988	61.1	66.2	57.5	75.0	46.0
1989	60.6	65.7	56.9	74.5	44.9
1990	60.1	64.8	56.6	73.8	44.0
1991	59.5	64.4	56.1	73.3	43.3
1992	58.5	63.4	55.1	72.6	42.5
1993	57.9	62.6	54.3	71.8	41.8
1994	57.2	62.2	53.6	70.9	41.2
1995	56.4	61.7	52.5	70.1	40.7
1996	55.6	61.0	51.7	69.4	40.3
Percentage point change	-5.8	-4.5	-6.2	-6.1	-6.6

* Alaska and Hawaii are not included. See the supplemental note to this indicator for further explanations.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, Longitudinal Research File (School File).

Table 47-2 Percentage of white students in a black, Hispanic, or Asian student's school, as a ratio to the overall percentage of white students[1], by region:[2] Fall 1987–96

Fall	South	Border states	Northeast	Midwest	West
		Percentage of white students in a black student's school			
1987	65.8	49.0	37.8	38.4	55.4
1988	65.6	49.1	36.3	38.7	57.5
1989	65.4	49.0	36.5	39.1	57.8
1990	65.4	49.0	36.6	39.1	58.4
1991	65.2	48.9	36.6	39.3	59.1
1992	65.0	48.5	36.8	39.1	59.2
1993	64.7	48.1	36.8	39.0	59.4
1994	64.3	47.8	36.8	39.0	59.4
1995	63.9	47.5	36.7	38.2	59.4
1996	63.6	47.1	36.5	37.6	59.4
Percentage point change	-2.2	-1.9	-1.3	-0.8	4.0
		Percentage of white students in a Hispanic student's school			
1987	48.0	75.1	36.8	59.0	56.1
1988	48.0	76.2	35.4	59.1	56.4
1989	48.3	74.9	36.0	58.8	55.2
1990	48.5	73.7	36.6	58.6	54.8
1991	48.5	73.3	37.0	58.5	54.8
1992	48.7	72.4	37.2	58.5	54.6
1993	49.2	71.8	37.4	58.4	54.4
1994	49.6	71.1	37.5	58.6	54.1
1995	49.9	70.7	37.4	58.3	53.9
1996	50.2	70.6	37.7	58.0	53.6
Percentage point change	2.2	-4.5	0.9	-1.0	-2.5
		Percentage of white students in an Asian student's school			
1987	101.1	84.6	78.4	92.6	74.0
1988	101.3	85.5	78.3	92.1	74.0
1989	101.1	85.2	78.1	91.7	73.7
1990	100.8	84.6	78.3	91.0	73.6
1991	100.5	84.4	78.2	90.7	73.7
1992	99.6	83.6	77.4	90.2	73.4
1993	99.5	83.3	76.9	89.5	73.1
1994	99.2	83.3	76.3	89.0	73.2
1995	99.0	83.3	75.3	88.5	73.5
1996	98.7	83.1	74.8	88.3	74.1
Percentage point change	-2.4	-1.5	-3.6	-4.3	0.1

[1] The data in this table show the exposure indices (from supplementary table 47-1) as percentages of the values that would be obtained if students were distributed uniformly across schools. For example, in 1987, in the South, the percentage of white students in a typical black student's school (40.0 percent) was 65.8 percent as great as the overall percentage of white students in the South (60.8 percent).

[2] Alaska and Hawaii are not included in any of the regions. See the supplemental note to this indicator for an explanation of regional divisions.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, Longitudinal Research File (School File).

Racial and ethnic isolation of elementary and secondary students

Regions presented in Indicator 47 were defined according to the U.S. Department of Education, National Center for Education Statistics, Common Core of Data, Longitudinal Research File, as follows:

> South: Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Texas, Virginia;
>
> Border states: Delaware, District of Columbia, Kentucky, Maryland, Missouri, Oklahoma, West Virginia;
>
> Northeast: Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont;
>
> Midwest: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Nebraska, North Dakota, Ohio, South Dakota, Wisconsin;
>
> West: Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming;
>
> Other states: Alaska, Hawaii.

Alaska and Hawaii are not included in any of the national totals used in this indicator because the measures of isolation in these states have different implications than those for other states. The geographic isolation of Alaska and Hawaii limits the mobility of their residents, which affects the extent to which minority students' exposure to students who are white will change with respect to the changing demographics of these states' populations.

SOURCE: U.S. Department of education, National Center for Education Statistics, Common Core of Data, Longitudinal Research File (School File).

Table 48-1 Total and full-time-equivalent (FTE) enrollment in higher education, by control and type of institution: Fall 1972–96

Fall of year	All institutions	Public 4-year	Public 2-year	Private 4-year	Private 2-year
			Total enrollment		
1972	9,214,820	4,429,696	2,640,939	2,028,938	115,247
1973	9,602,123	4,529,895	2,889,621	2,060,128	122,479
1974	10,223,729	4,703,018	3,285,482	2,116,717	118,512
1975	11,184,859	4,998,142	3,836,366	2,216,598	133,753
1976	11,012,137	4,901,691	3,751,786	2,227,125	131,535
1977	11,285,787	4,945,224	3,901,769	2,297,621	141,173
1978	11,260,092	4,912,203	3,873,690	2,319,422	154,777
1979	11,569,899	4,980,012	4,056,810	2,373,221	159,856
1980	12,096,895	5,128,612	4,328,782	2,441,996	197,505
1981	12,371,672	5,166,324	4,480,708	2,489,137	235,503
1982	12,425,780	5,176,434	4,519,653	2,477,640	252,053
1983	12,464,661	5,223,404	4,459,330	2,517,791	264,136
1984	12,241,940	5,198,273	4,279,097	2,512,894	251,676
1985	12,247,055	5,209,540	4,269,733	2,506,438	261,344
1986	12,503,511	5,300,202	4,413,691	2,523,761	265,857
1987	12,766,642	5,432,200	4,541,054	2,558,220	235,168
1988	13,055,337	5,545,901	4,615,487	2,634,281	259,668
1989	13,538,560	5,694,303	4,883,660	2,693,368	267,229
1990	13,818,637	5,848,242	4,996,475	2,730,312	243,608
1991	14,358,953	5,904,748	5,404,815	2,802,305	247,085
1992	14,487,359	5,900,012	5,484,555	2,864,957	237,835
1993	14,304,803	5,851,760	5,337,328	2,887,176	228,539
1994	14,278,790	5,825,213	5,308,467	2,923,867	221,243
1995	14,261,781	5,814,545	5,277,829	2,954,707	214,700
1996*	14,300,255	5,806,904	5,283,267	2,995,931	214,153

Table 48-1 Total and full-time-equivalent (FTE) enrollment in higher education, by control and type of institution: Fall 1972–96—Continued

Fall of year	All institutions	Public 4-year	Public 2-year	Private 4-year	Private 2-year
			Full-time-equivalent (FTE) enrollment		
1972	7,253,712	3,706,238	1,746,613	1,700,554	100,308
1973	7,453,467	3,721,035	1,908,533	1,718,191	105,708
1974	7,805,454	3,847,542	2,097,257	1,758,706	101,949
1975	8,479,688	4,056,500	2,465,810	1,843,903	113,475
1976	8,312,502	3,998,450	2,351,453	1,849,551	113,048
1977	8,415,339	4,039,071	2,357,405	1,896,005	122,858
1978	8,348,482	3,996,126	2,283,073	1,936,231	133,052
1979	8,487,317	4,059,304	2,333,313	1,956,768	137,932
1980	8,819,013	4,158,267	2,484,027	2,003,105	173,614
1981	9,014,521	4,208,506	2,572,794	2,041,341	191,880
1982	9,091,648	4,220,648	2,629,941	2,028,275	212,784
1983	9,166,398	4,265,807	2,615,672	2,059,415	225,504
1984	8,951,695	4,237,895	2,446,769	2,054,816	212,215
1985	8,943,433	4,239,622	2,428,159	2,054,717	220,935
1986	9,064,165	4,295,494	2,482,551	2,064,831	221,291
1987	9,229,736	4,395,728	2,541,961	2,090,776	201,269
1988	9,464,271	4,505,774	2,591,131	2,158,372	208,994
1989	9,780,881	4,619,828	2,751,762	2,193,774	215,517
1990	9,983,436	4,740,049	2,817,933	2,227,959	197,495
1991	10,360,606	4,795,704	3,067,141	2,285,750	212,011
1992	10,436,776	4,797,884	3,113,817	2,331,495	193,580
1993	10,351,415	4,765,983	3,046,411	2,354,938	184,083
1994	10,348,072	4,749,524	3,034,872	2,387,817	175,859
1995	10,334,956	4,757,223	2,994,592	2,415,621	167,520
1996*	10,402,260	4,767,248	3,008,050	2,464,432	162,530

* Preliminary data.

NOTE: Increases in enrollments in private 2-year institutions during 1980 and 1981 reflect the addition of schools accredited by the National Association of Trade and Technical Schools. Due to a revision in data compilation procedures, FTE figures for 1986 and later years are not directly comparable to data for earlier years.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics 1998*, tables 173 and 200 (based on the IPEDS "Fall Enrollment" surveys).

Table 49-1 Percentage distribution of total enrollment in institutions of higher education, by control and type of institution and race–ethnicity of student: Fall 1976–96

Control and type of institution and race–ethnicity of student	1976	1978	1980	1982	1984	1986	1988	1990	1991	1992	1993	1994	1995	1996[1]
All institutions	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
U.S. residents[2]														
White	82.6	81.9	81.4	80.7	80.2	79.3	78.8	77.6	76.5	75.1	74.1	73.0	72.3	71.5
Total minority	15.4	15.9	16.1	16.6	17.0	17.9	18.4	19.6	20.6	21.8	22.7	23.8	24.5	25.2
Black	9.4	9.4	9.2	8.9	8.8	8.7	8.7	9.0	9.3	9.6	9.9	10.1	10.3	10.5
Hispanic	3.5	3.7	3.9	4.2	4.4	4.9	5.2	5.7	6.0	6.6	6.9	7.3	7.7	8.1
Asian/Pacific Islander	1.8	2.1	2.4	2.8	3.2	3.6	3.8	4.1	4.4	4.8	5.1	5.4	5.6	5.8
American Indian/Alaskan Native	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.9	0.9	0.9	0.9
Nonresident alien	2.0	2.3	2.5	2.7	2.7	2.8	2.8	2.8	2.9	3.1	3.2	3.2	3.2	3.3
Public institutions	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
U.S. residents[2]														
White	82.1	81.4	81.0	80.3	79.8	78.8	78.4	77.3	76.2	74.6	73.5	72.4	71.6	70.8
Total minority	16.2	16.7	16.9	17.5	17.9	18.9	19.2	20.3	21.3	22.8	23.8	24.9	25.7	26.5
Black	9.6	9.6	9.3	9.0	8.9	8.8	8.7	9.0	9.3	9.7	10.0	10.3	10.5	10.6
Hispanic	3.9	4.1	4.3	4.6	4.8	5.5	5.8	6.2	6.6	7.2	7.6	8.1	8.4	8.9
Asian/Pacific Islander	1.9	2.2	2.5	3.1	3.4	3.8	4.0	4.3	4.6	5.0	5.2	5.6	5.8	5.9
American Indian/Alaskan Native	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.9	0.9	1.0	1.0	1.0	1.0
Nonresident alien	1.7	1.9	2.2	2.3	2.3	2.3	2.3	2.4	2.4	2.6	2.7	2.7	2.7	2.7
Private institutions	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
U.S. residents[2]														
White	84.5	83.6	82.8	82.1	81.8	81.3	80.3	78.6	77.6	76.8	76.2	75.4	74.6	74.1
Total minority	12.4	13.0	13.4	13.7	14.0	14.4	15.4	17.0	17.7	18.4	18.9	19.7	20.4	20.9
Black	8.6	8.7	8.8	8.5	8.4	8.2	8.6	9.1	9.2	9.4	9.6	9.7	9.9	10.0
Hispanic	2.0	2.2	2.5	2.7	2.8	3.1	3.2	3.7	4.1	4.3	4.4	4.7	4.9	5.1
Asian/Pacific Islander	1.4	1.6	1.8	2.0	2.4	2.8	3.2	3.8	4.0	4.2	4.4	4.8	5.0	5.2
American Indian/Alaskan Native	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.6	0.6
Nonresident alien	3.1	3.5	3.8	4.2	4.2	4.3	4.3	4.4	4.6	4.8	4.9	4.9	5.0	5.0
All 4-year institutions	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
U.S. residents[2]														
White	84.4	83.7	82.9	82.5	81.8	81.0	80.5	78.9	78.0	76.9	76.0	75.0	74.3	73.6
Total minority	13.1	13.5	13.9	14.0	14.6	15.3	15.8	17.3	18.1	19.0	19.8	20.8	21.5	22.1
Black	8.5	8.5	8.4	8.0	8.0	7.9	8.0	8.4	8.7	9.0	9.3	9.5	9.7	9.9
Hispanic	2.4	2.6	2.9	3.0	3.2	3.6	3.6	4.2	4.4	4.7	4.9	5.3	5.5	5.8
Asian/Pacific Islander	1.7	1.9	2.1	2.5	2.9	3.3	3.6	4.2	4.4	4.6	4.9	5.3	5.5	5.7
American Indian/Alaskan Native	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.7	0.7	0.7	0.8
Nonresident alien	2.5	2.8	3.2	3.5	3.7	3.7	3.7	3.8	3.9	4.1	4.2	4.2	4.2	4.2
Public 4-year institutions	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
U.S. residents[2]														
White	84.2	83.4	82.7	82.3	81.4	80.7	80.4	78.8	77.9	76.8	75.8	74.8	74.0	73.4
Total minority	13.6	14.1	14.5	14.6	15.3	16.0	16.4	17.9	18.7	19.6	20.5	21.6	22.3	22.9
Black	8.6	8.7	8.5	8.1	8.2	8.0	8.1	8.5	8.7	9.1	9.4	9.6	9.8	10.0
Hispanic	2.6	2.9	3.0	3.2	3.4	3.9	3.9	4.5	4.7	5.0	5.3	5.7	6.0	6.2
Asian/Pacific Islander	1.8	2.0	2.3	2.7	3.1	3.5	3.8	4.3	4.5	4.8	5.1	5.4	5.7	5.9
American Indian/Alaskan Native	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.8	0.8	0.9	0.9
Nonresident alien	2.2	2.5	2.8	3.1	3.3	3.3	3.3	3.4	3.5	3.6	3.7	3.7	3.6	3.7

Table 49-1 Percentage distribution of total enrollment in institutions of higher education, by control and type of institution and race–ethnicity of student: Fall 1976–96—Continued

Control and type of institution and race–ethnicity of student	1976	1978	1980	1982	1984	1986	1988	1990	1991	1992	1993	1994	1995	1996[1]
Private 4-year institutions	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
U.S. residents[2]														
White	84.9	84.2	83.3	82.8	82.5	81.7	80.8	79.2	78.3	77.2	76.4	75.6	74.9	74.2
Total minority	11.9	12.3	12.7	12.8	13.1	13.7	14.6	16.1	16.8	17.7	18.4	19.2	19.8	20.5
Black	8.2	8.1	8.0	7.8	7.6	7.6	7.9	8.4	8.6	8.9	9.2	9.3	9.5	9.7
Hispanic	2.0	2.2	2.5	2.6	2.7	2.9	3.0	3.5	3.7	4.0	4.2	4.5	4.7	5.0
Asian/Pacific Islander	1.4	1.7	1.8	2.1	2.5	2.9	3.3	3.9	4.1	4.4	4.6	5.0	5.2	5.3
American Indian/Alaskan Native	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.5	0.5	0.5
Nonresident alien	3.2	3.5	4.0	4.4	4.5	4.6	4.6	4.7	4.9	5.0	5.2	5.2	5.2	5.3
All 2-year institutions	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
U.S. residents[2]														
White	79.3	78.6	78.7	77.9	77.6	76.6	76.0	75.5	74.3	72.2	71.2	69.8	69.1	68.1
Total minority	19.6	20.1	19.9	20.8	21.2	22.3	22.7	23.3	24.4	26.2	27.2	28.5	29.3	30.3
Black	11.1	11.0	10.4	10.3	10.1	10.0	9.7	10.0	10.2	10.5	10.8	11.1	11.3	11.4
Hispanic	5.4	5.6	5.6	6.1	6.4	7.3	7.9	8.1	8.6	9.5	10.0	10.5	11.1	11.7
Asian/Pacific Islander	2.0	2.4	2.8	3.3	3.7	4.0	4.1	4.1	4.5	5.1	5.3	5.7	5.7	5.9
American Indian/Alaskan Native	1.1	1.1	1.0	1.0	1.0	1.1	1.0	1.0	1.1	1.1	1.1	1.2	1.2	1.2
Nonresident alien	1.1	1.3	1.4	1.3	1.2	1.1	1.2	1.3	1.3	1.6	1.6	1.7	1.6	1.7
Public 2-year institutions	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
U.S. residents[2]														
White	79.3	78.8	78.8	78.0	77.8	76.6	76.1	75.6	74.5	72.2	71.1	69.7	69.0	67.9
Total minority	19.6	20.0	19.8	20.7	21.1	22.3	22.7	23.1	24.2	26.2	27.3	28.6	29.4	30.4
Black	10.9	10.7	10.1	10.0	9.8	9.7	9.4	9.6	9.9	10.3	10.6	11.0	11.1	11.3
Hispanic	5.5	5.7	5.8	6.2	6.5	7.4	8.0	8.2	8.6	9.6	10.1	10.7	11.2	11.9
Asian/Pacific Islander	2.1	2.5	2.8	3.4	3.8	4.1	4.2	4.2	4.6	5.2	5.4	5.8	5.8	6.0
American Indian/Alaskan Native	1.0	1.1	1.0	1.0	1.0	1.1	1.0	1.0	1.1	1.1	1.1	1.2	1.2	1.2
Nonresident alien	1.0	1.2	1.4	1.3	1.2	1.1	1.2	1.3	1.3	1.6	1.6	1.7	1.6	1.7
Private 2-year institutions	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
U.S. residents[2]														
White	78.6	74.8	75.1	75.0	75.9	77.1	75.4	71.7	70.4	71.5	73.0	72.5	70.8	72.0
Total minority	19.1	22.6	22.8	23.2	22.9	21.4	23.4	27.0	28.0	27.0	25.4	25.9	28.0	26.7
Black	15.3	18.1	18.1	16.8	15.4	13.9	16.0	17.6	16.4	15.4	14.4	14.4	15.5	14.9
Hispanic	2.3	3.2	2.6	4.1	4.5	5.3	5.1	6.1	8.2	7.5	7.5	7.6	8.4	7.7
Asian/Pacific Islander	0.8	0.6	1.0	1.4	1.9	1.5	1.6	2.0	2.3	2.3	2.4	2.6	2.9	2.9
American Indian/Alaskan Native	1.5	1.3	1.0	1.4	1.5	1.1	1.2	1.2	1.2	1.7	1.2	1.3	1.2	1.2
Nonresident alien	2.3	2.6	2.1	1.8	1.5	1.5	1.2	1.6	1.5	1.6	1.6	1.6	1.2	1.3

[1] Estimates based on preliminary data.

[2] Includes U.S. citizens and resident aliens.

NOTE: Details may not add to totals due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics*, various years (based on the IPEDS "Fall Enrollment" surveys).

Table 51-1 Event dropout rates[1] for those in grades 10–12, ages 15–24, by parents' highest education level:[2] October 1990–97

Parents' highest education level	1990	1991	1992	1993	1994[3]	1995[3]	1996[3]	1997[3]
Total	**4.0**	**4.0**	**4.4**	**4.5**	**5.3**	**5.7**	**5.0**	**4.6**
Less than high school completion	9.6	7.4	11.2	9.9	10.9	11.9	10.2	11.7
High school completion	3.4	4.3	4.6	4.7	6.7	7.5	[4]4.7	5.0
Some college	2.3	2.7	2.2	3.3	2.7	3.8	3.9	2.8
Bachelor's degree or higher	0.8	1.1	0.6	1.2	1.1	1.1	1.4	1.2
Not available[5]	24.9	[5]22.2	18.9	17.3	24.7	22.7	27.8	19.5

[1] The event dropout rate is the percentage of those in grades 10–12, ages 15–24, who were enrolled the previous October, but who were not enrolled and had not graduated in October of the current year.

[2] Parents' highest education level is defined as either 1) the highest educational attainment of the two parents who reside with the student, or if only one parent is in the residence, the highest educational attainment of that parent; or 2) when neither parent resides with the student, the highest educational attainment of the head of the household and his or her spouse.

[3] In 1994, the survey instrument for the Current Population Survey (CPS) was changed and weights were adjusted. See the supplemental note to this indicator for further discussion.

[4] Revised from previously published figures.

[5] Parents' highest education level is not available for 1) those who do not live with their parents and who are classified as the head of the household (not including those who live in college dormitories); and 2) those whose parents' education level was not reported. In 1996, 23 percent of event dropouts ages 15–24 were in this category.

NOTE: Beginning in 1992, the Current Population Survey (CPS) changed the questions used to obtain the educational attainment of respondents. See the supplemental note to *Indicator 59* for further discussion.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys, various years.

Recent school dropouts

In this indicator, recent school dropouts are measured using the event dropout rate. The event dropout rate is the percentage of students ages 15–24 enrolled in grades 10–12 in October of a given year who are not enrolled and have not graduated one year later.

Calculating the event dropout rate requires estimating 1) the number of students who left high school before graduating (recent dropouts) and 2) the number of students who were enrolled in grades 10, 11, and 12 the previous October. The event dropout rate for 1997 is calculated by using data from the October Current Population Survey (CPS). The numerator is estimated as the number of persons ages 15–24 who were enrolled in grades 10–12 in October 1996, who were not enrolled in grades 10–12 in October 1997, and who had not completed 12 years of school. The denominator is estimated as the event dropouts and those ages 15–24 who attended grades 10, 11, and 12 in October 1996 and were still enrolled, or who had completed 12 (or more) years of school and who indicated that they had graduated between October 1996 and October 1997. Those enrolled in special schools were counted as "not enrolled in regular school" and may have been classified as recent dropouts if they were enrolled in a regular school the previous October.

Change in CPS questions used to report educational attainment

From 1972 to 1991, the CPS defined educational attainment as "years of school completed." Individuals who completed 12 years of school were regarded as high school graduates and those who completed 16 years of school were considered college graduates. The number of years of school completed was based on responses to two questions: 1) "What is the highest grade . . . ever attended?" and 2) "Did . . . complete it?" For example, individuals who responded that the highest grade they ever attended was the first year of college and that they did not complete it were regarded as having completed 12 years of school.

Beginning in 1992, these two questions were combined into a single question: "What is the highest level of school . . . completed or the highest degree . . . received?" Previously, the earlier high school levels were listed as single summary categories such as "9th-grade, 10th-grade, or 11th-grade." Then, several new categories were added, including "12th grade, no diploma"; "H.S. graduate—diploma or equivalent"; and "Some college—no degree." Finally, college degrees were listed by type, allowing for a more accurate description of educational attainment. See the supplemental note to *Indicator 59* for further discussion on the effects of this change in measuring educational attainment.

Procedural changes

In 1994, the Bureau of the Census introduced several changes to the procedures used in the CPS. These changes may affect the comparability of current statistics to those derived from earlier surveys. In 1994, the sample weights were calculated using information from both the 1980 and the 1990 Decennial Censuses, and adjustments for undercounts were included. These adjustments resulted in the assignment of higher weights to any age, sex, or race–ethnicity group that was found to be underrepresented in the 1990 Census. In earlier surveys, 1990 population figures were based on the 1980 Decennial Census and information collected during the 1980s on births, deaths, and migration, and no adjustments for undercounts were made. If, for some groups, the latter produces different population estimates than the former, the sample weights would change, along with the statistics used to calculate them.

Also, the Bureau began using Computer-Aided Personal (and Telephone) Interviews (CAPI and CATI) to administer the survey in 1994. For earlier surveys, interviewers were given printed questionnaires to use. It is well known that the method in which a survey is administered can effect its responses. Although substantial testing was performed to minimize or predict these effects, all questions were not tested. Therefore, some statistics, such as dropout rates, may be affected by the change in survey procedures.

Table 52-1 Percentage distribution of 16- to 24-year-olds, by recency of migration and race–ethnicity: October 1997

		Hispanic				Non-Hispanic			
Recency of migration	Total	Total	Puerto Rican	Mexican	Other Hispanic	Total	White	Black	Asian/ Pacific Islander
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Born outside 50 states/D.C.	11.2	41.5	26.1	37.0	58.3	6.6	3.1	7.2	59.4
First generation	10.2	34.1	57.7	32.5	29.3	6.3	5.2	4.1	29.8
Later generation	78.5	24.4	16.2	30.5	12.4	87.0	91.7	88.6	10.8

NOTE: Details may not add to 100.0 due to rounding. People born in Puerto Rico and the U.S. territories are grouped with those born in other countries. Individuals are classified as first generation if they were born in one of the 50 states or Washington, D.C., and at least one of their parents was not. Later generation includes those who were born in one of the 50 states or Washington, D.C., as were both of their parents.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Survey, 1997.

Table 53-1 Percentage of high school completers ages 16–24 who were enrolled in college the October after completing high school, by parents' highest education level: October 1990–97

Parents' highest education level[1]	1990	1991	1992	1993	1994	1995	1996	1997
Total	**60.1**	**62.5**	**61.9**	**61.5**	**61.9**	**61.9**	**65.0**	**67.0**
Less than high school diploma	33.9	42.6	33.1	47.1	43.0	27.3	45.0	51.4
High school diploma or GED	49.0	51.0	55.5	52.3	49.9	47.0	56.1	61.7
Some college	65.6	67.5	67.5	62.7	65.0	70.2	66.6	62.6
Bachelor's degree or higher	83.1	87.2	81.3	87.9	82.5	87.7	85.2	86.1
Not available[2]	47.7	42.1	38.0	42.0	43.1	30.8	45.6	51.3

[1] Parents' highest education level is defined as either 1) the highest educational attainment of the two parents who reside with the student or, if only one parent is in the residence, the highest educational attainment of that parent; or 2) when neither parent resides with the student, the highest educational attainment of the head of the household and his or her spouse.

[2] Parents' highest education level is not available for 1) those who do not live with their parents and who are classified as the head of the household (not including those who live in college dormitories); and 2) those whose parents' educational attainment was not reported. In 1997, approximately 14 percent of high school completers ages 16–24 were in this category.

NOTE: The Current Population Survey (CPS) questions used to obtain educational attainment were changed in 1992. The category "high school diploma or equivalency certificate" includes those who have a high school diploma or a GED. See the supplemental note to *Indicator 59* for further discussion. In 1994, the survey instrument for the CPS was changed and weights were adjusted. See the supplemental note to *Indicator 51* for further discussion.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Table 53-2 Percentage of high school completers ages 16–24 who were enrolled in college the October after completing high school, by type of institution, family income, and race–ethnicity: October 1972–97

				Family income[1]				Race–ethnicity[2]				
				Low		Middle	High	White	Black		Hispanic	
		Type of institution			3-year					3-year		3-year
October	Total	2-year	4-year	Annual	average	Annual	Annual	Annual	Annual	average	Annual	average
1972	49.2	—	—	26.1	([3])	45.2	63.8	49.7	44.6	([3])	45.0	([3])
1973	46.6	14.9	31.7	20.3	([3])	40.9	64.4	47.8	32.5	41.4	54.1	48.7
1974	47.6	15.2	32.4	—	—	—	—	47.2	47.2	40.5	46.9	53.0
1975	50.7	18.2	32.6	31.2	([3])	46.2	64.5	51.1	41.7	44.4	58.0	52.5
1976	48.8	15.6	33.3	39.1	32.7	40.5	63.0	48.8	44.4	45.2	52.7	53.8
1977	50.6	17.5	33.1	27.7	32.8	44.2	66.3	50.8	49.5	46.8	50.8	48.5
1978	50.1	17.0	33.1	31.4	29.9	44.3	64.0	50.5	46.4	47.5	42.0	45.9
1979	49.3	17.5	31.8	30.5	31.5	43.2	63.2	49.9	46.7	45.3	45.0	46.4
1980	49.3	19.4	29.9	32.5	32.2	42.5	65.2	49.8	42.7	44.0	52.3	49.8
1981	53.9	20.5	33.5	33.6	33.0	49.2	67.6	54.9	42.7	40.4	52.1	49.2
1982	50.6	19.1	31.5	32.8	33.7	41.7	70.9	52.7	35.8	38.9	43.2	49.8
1983	52.7	19.2	33.5	34.6	34.0	45.2	70.3	55.0	38.2	37.9	54.2	47.3
1984	55.2	19.4	35.8	34.5	36.4	48.4	74.0	59.0	39.8	40.0	44.3	49.9
1985	57.7	19.6	38.1	40.2	36.2	50.6	74.6	60.1	42.2	39.6	51.0	46.5
1986	53.8	19.3	34.5	33.9	37.0	48.5	71.0	56.8	36.9	43.8	44.0	42.9
1987	56.8	18.9	37.9	36.9	37.8	50.0	73.8	58.6	52.2	44.5	33.5	44.9
1988	58.9	21.9	37.1	42.5	42.5	54.7	72.8	61.1	44.4	50.0	57.1	48.6
1989	59.6	20.7	38.9	48.1	45.8	55.4	70.7	60.7	53.4	48.2	55.1	51.6
1990	60.1	20.1	40.0	46.7	44.7	54.4	76.6	63.0	46.8	48.9	42.7	51.7
1991	62.5	24.9	37.7	39.5	42.3	58.4	78.2	65.4	46.4	47.2	57.2	51.6
1992	61.9	23.0	38.9	40.9	43.6	57.0	79.0	64.3	48.2	50.1	55.0	58.1
1993	61.5	22.4	39.1	50.4	44.1	56.9	79.3	62.9	55.6	51.5	62.2	55.4
1994	61.9	21.0	40.9	41.0	41.9	57.8	78.4	64.5	50.8	52.5	49.1	55.0
1995	61.9	21.5	40.4	34.2	41.3	56.1	83.4	64.3	51.2	52.6	53.7	51.2
1996	65.0	23.1	41.9	48.6	46.6	62.7	78.0	67.4	56.0	55.2	50.8	56.7
1997	67.0	22.8	44.3	57.0	([3])	60.8	82.2	68.2	58.5	([3])	65.6	([3])

— Not available. Data for type of institution were not collected until 1973, and data on family income were not available in 1974.

[1] Low income is the bottom 20 percent of all family incomes; high income is the top 20 percent of all family incomes; and middle income is the 60 percent in between. See the supplemental note to this indicator for further discussion.

[2] Included in the total but not shown separately are high school completers from other racial–ethnic groups.

[3] Due to small sample sizes for the low income, black, and Hispanic categories, 3-year averages were also calculated for each category. For example, the 3-year average for blacks in 1973 is the average percentage of black high school completers ages 16–24 who were enrolled in college the October after completing high school in 1972, 1973, and 1974. Thus, 3-year averages cannot be calculated for 1972 and 1997, and for groups of 3 years in which some data are not available (e.g., 1973–75 for the low income category).

NOTE: In 1994, the survey instrument for the Current Population Survey (CPS) was changed and weights were adjusted. See the supplemental note to *Indicator 51* for further discussion. Details may not add to totals due to rounding.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Family income

The Current Population Survey (CPS) includes a family income variable used in many indicators in this publication to measure a student's economic standing. Low income is the bottom 20 percent of all family incomes; high income is the top 20 percent of all family incomes; and middle income is the 60 percent in between. The table that follows shows the real dollar amounts (rounded to the nearest $100) of the breakpoints between low and middle income and between middle and high income. For example, in 1997, low income was defined as the range between $0–12,800; middle income was defined as the range between $12,801–60,800; and high income was defined as $60,801 and over. Therefore, the breakpoints between low and middle income and between middle and high income are $12,800 and $60,800, respectively.

Dollar value (in current dollars) at the breakpoint between low and middle income and between middle and high income categories of family income: October 1970–97

October	Breakpoints between:	
	Low and middle	Middle and high
1970	$3,300	$11,900
1971	—	—
1972	3,500	13,600
1973	3,900	14,800
1974	—	—
1975	4,300	17,000
1976	4,600	18,300
1977	4,900	20,000
1978	5,300	21,600
1979	5,800	23,700
1980	6,000	25,300
1981	6,500	27,100
1982	7,100	31,300
1983	7,300	32,400
1984	7,400	34,200
1985	7,800	36,400
1986	8,400	38,200
1987	8,800	39,700
1988	9,300	42,100
1989	9,500	44,000
1990	9,600	46,300
1991	10,500	48,400
1992	10,700	49,700
1993	10,800	50,700
1994	11,800	*55,500
1995	11,700	56,200
1996	12,300	58,200
1997	12,800	60,800

— Not available.

*Revised from previously published figures.

NOTE: Amounts are rounded to the nearest $100.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Survey.

Table 54-1 Percentage of high school completers enrolled in college, by age, race–ethnicity, and type of institution: October 1973–97

	Ages 18–24				Ages 25–34				Age 35 or older			
October	Total	White	Black	Hispanic	Total	White	Black	Hispanic	Total	White	Black	Hispanic
2-year institutions												
1973	6.3	6.3	4.6	9.8	2.1	2.0	2.3	3.6	—	—	—	—
1974	7.0	6.4	7.2	14.6	2.4	2.2	3.6	3.3	—	—	—	—
1975	8.1	7.7	9.3	13.6	3.0	2.7	5.2	5.5	—	—	—	—
1976	7.8	7.3	8.6	14.4	3.1	2.7	4.8	6.5	0.9	0.9	1.4	2.1
1977	8.0	7.5	9.8	13.9	3.1	2.8	5.5	4.6	—	—	—	—
1978	8.0	7.6	7.9	11.9	2.7	2.5	4.1	4.6	1.0	0.9	1.7	1.9
1979	7.6	7.1	8.4	13.3	2.6	2.4	3.2	4.4	1.0	0.9	1.1	1.6
1980	8.5	8.1	9.0	11.9	2.8	2.6	3.4	3.8	0.8	0.8	1.4	1.1
1981	9.0	8.6	7.9	14.3	2.7	2.5	3.2	4.2	0.9	0.8	1.5	2.6
1982	9.3	9.0	7.4	14.6	2.8	2.6	3.5	4.0	0.9	0.8	1.0	1.4
1983	8.9	8.8	7.4	12.1	2.8	2.6	3.5	5.3	0.9	0.9	0.7	1.2
1984	8.6	8.2	9.2	10.8	2.7	2.6	2.8	3.5	0.8	0.7	1.0	0.8
1985	8.6	8.3	8.4	10.5	2.8	2.7	2.7	4.1	0.9	0.8	1.1	1.1
1986	9.0	9.0	6.9	12.3	2.7	2.6	2.5	4.1	0.9	0.9	1.3	0.9
1987	9.8	9.5	8.7	12.0	2.5	2.3	2.6	3.8	0.9	0.8	1.0	1.0
1988	10.6	10.6	7.8	13.4	2.5	2.3	3.5	3.3	0.9	0.9	1.4	1.5
1989	9.9	9.5	9.1	13.2	2.5	2.4	2.4	3.3	0.9	0.9	0.9	2.0
1990	10.5	10.2	10.6	13.2	2.8	2.7	2.7	3.5	1.0	0.9	1.1	1.9
1991	11.8	11.3	11.3	14.9	3.2	3.0	3.6	3.8	1.0	1.0	1.3	1.3
1992	12.0	11.2	10.7	17.6	2.9	2.8	2.3	3.8	0.9	0.9	0.9	1.4
1993	11.7	11.5	9.4	16.2	2.7	2.4	3.4	4.2	1.0	0.9	1.4	1.5
1994	11.1	10.8	10.5	13.1	3.1	2.7	3.9	4.4	1.0	0.9	1.2	2.0
1995	10.9	10.2	11.2	13.5	2.7	2.5	3.6	3.0	0.9	0.8	1.1	1.7
1996	11.4	11.0	9.6	13.6	2.9	2.7	4.1	2.6	1.0	0.9	1.2	1.6
1997	11.9	11.7	10.4	13.9	2.7	2.7	3.0	1.9	0.9	0.8	1.1	1.3
4-year institutions												
1973	15.6	15.9	12.5	13.3	1.9	1.8	2.4	2.5	—	—	—	—
1974	15.6	15.9	13.6	11.8	1.8	1.6	3.2	1.8	—	—	—	—
1975	15.7	15.8	15.1	15.9	2.0	1.9	2.6	2.5	—	—	—	—
1976	24.4	24.6	23.9	19.4	6.3	6.2	6.8	3.8	1.3	1.2	2.7	1.8
1977	23.1	23.4	19.9	16.8	6.6	6.4	7.6	7.2	—	—	—	—
1978	22.6	22.9	20.8	14.5	6.1	6.0	6.0	5.4	1.4	1.3	2.0	2.4
1979	22.8	23.5	19.6	15.7	6.2	6.2	5.3	6.6	1.4	1.4	2.1	1.2
1980	22.2	23.0	17.0	16.9	5.6	5.7	5.5	4.6	1.2	1.1	1.7	1.7
1981	22.4	23.1	18.8	15.0	5.8	5.6	6.2	5.7	1.4	1.3	2.2	1.3
1982	22.7	23.4	19.5	13.6	5.8	5.8	5.6	4.5	1.3	1.2	1.7	1.5
1983	22.6	23.4	18.4	17.9	5.9	5.8	4.9	4.4	1.4	1.3	1.9	1.9
1984	23.4	24.5	16.9	17.4	5.6	5.5	4.7	6.2	1.2	1.2	1.6	0.9
1985	23.8	25.3	16.4	14.8	5.6	5.7	4.1	5.3	1.4	1.3	1.8	2.1
1986	24.2	24.7	20.7	16.3	5.3	5.1	5.0	6.0	1.4	1.3	1.9	2.3
1987	26.2	27.7	20.3	16.1	5.6	5.5	5.3	5.0	1.5	1.4	1.6	1.5
1988	26.4	27.8	20.0	17.4	5.4	5.5	3.9	4.5	1.8	1.7	1.9	1.9
1989	28.1	30.1	21.4	15.1	5.8	5.9	3.8	3.8	1.6	1.6	1.2	1.7
1990	28.4	30.2	21.8	15.1	5.8	6.1	3.3	3.5	1.7	1.7	1.8	2.0
1991	29.1	30.9	19.5	19.1	5.8	5.7	4.5	4.8	1.7	1.7	2.1	1.6
1992	29.6	31.3	22.7	18.5	5.7	5.6	4.4	4.7	1.6	1.6	1.7	1.3
1993	29.3	30.6	22.8	18.7	5.8	5.8	4.7	5.2	1.6	1.5	2.0	1.6
1994	31.1	32.8	25.1	19.8	6.5	6.4	5.8	5.7	1.7	1.6	2.3	2.3
1995	31.2	33.5	24.0	21.4	6.7	6.8	5.5	5.0	1.7	1.6	2.5	2.1
1996	31.8	34.0	26.1	20.2	6.8	6.4	6.8	7.1	1.7	1.6	2.4	1.8
1997	33.0	34.7	28.9	21.8	6.7	6.4	6.0	5.7	1.7	1.6	2.5	1.3

— Not available

NOTE: In 1994, the survey instrument for the Current Population Survey (CPS) was changed and weights were adjusted. See the supplemental note to *Indicator 51* for further discussion. Included in the total but not shown separately are high school completers from other racial–ethnic groups.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Table 55-1 Percentage distribution of 1989–90 beginning students by their highest degree attained or enrollment status in 1994, by persistence or departure status in 1989–90 and type of first institution attended

Persistence and departure status and type of first institution	Attained by 1994 (highest degree) Total	Certificate	Associate's degree	Bachelor's degree	No degree, enrolled in 1994	No degree, not enrolled in 1994
			All beginning students			
Total[1]	**48.3**	**8.0**	**11.0**	**29.4**	**14.9**	**36.7**
Persistence or departure in 1989–90						
Persisted to 1990–91[2]	60.5	6.9	13.3	40.2	16.5	23.0
Stopped out, returned to same institution	28.6	9.7	10.6	8.3	21.5	49.9
Stopped out, transferred to another institution	42.6	30.5	9.0	3.1	20.2	37.2
			All 4-year			
Total	**60.3**	**2.9**	**4.2**	**53.3**	**15.2**	**24.4**
Persistence or departure in 1989–90						
Persisted to 1990–91[2]	67.8	2.6	3.9	61.3	15.1	17.1
Stopped out, returned to same institution	32.1	1.4	1.6	29.2	26.3	41.7
Stopped out, transferred to another institution	34.0	11.7	14.0	8.3	23.5	42.5
			Public 4-year			
Total	**54.8**	**3.2**	**4.7**	**46.9**	**18.4**	**26.8**
Persistence or departure in 1989–90						
Persisted to 1990–91[2]	62.7	2.8	4.6	55.3	18.8	18.5
Stopped out, returned to same institution	19.7	0.0	1.8	17.9	30.9	49.4
Stopped out, transferred to another institution	34.4	13.6	13.6	7.2	23.3	42.3
			Private, not-for-profit 4-year			
Total	**71.8**	**2.3**	**3.0**	**66.6**	**8.6**	**19.6**
Persistence or departure in 1989–90						
Persisted to 1990–91[2]	77.7	2.1	2.6	73.1	7.9	14.4
Stopped out, returned to same institution	63.1	4.8	0.9	57.5	14.7	22.2
Stopped out, transferred to another institution	32.7	6.3	15.2	11.2	24.1	43.2
			Public 2-year			
Total	**36.7**	**12.9**	**17.5**	**6.3**	**14.7**	**48.6**
Persistence or departure in 1989–90						
Persisted to 1990–91[2]	50.3	13.1	26.5	10.7	18.4	31.3
Stopped out, returned to same institution	27.4	12.5	13.7	1.3	19.9	52.7
Stopped out, transferred to another institution	47.9	42.0	5.9	0.0	18.1	34.0

[1] Does not include students in private, for-profit institutions; public less-than-2-year institutions; or private, not-for-profit less-than-4-year institutions (about 14 percent of beginning students).

[2] Includes a small percentage of students who attained a certificate in1989–90.

NOTE: Details may not add to 100.0 due to rounding. Note also that totals include stayouts, who are not displayed in the table. Therefore, the total percentage may not be within the range of the row subgroups. Percentages less than 0.05 percent are rounded to 0.0.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1989–90 Beginning Postsecondary Students Longitudinal Study, Second Follow-up (BPS:90/94), Data Analysis System.

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Table 56-1 Percentage distribution of 1989–90 beginning postsecondary students according to selected student characteristics, by parents' highest education level

		First-generation status		
Selected student characteristics	Total	First generation	Parents have some college	Parents have bachelor's or advanced degree
Total	**100.0**	**100.0**	**100.0**	**100.0**
Sex				
Male	46.0	42.7	45.6	51.9
Female	54.0	57.3	54.4	48.2
Age in 1989–90				
18 years or younger	61.2	49.4	66.7	79.2
19–24 years	24.3	29.2	25.9	18.2
25–29 years	5.0	8.8	3.1	1.3
30 years or older	9.5	12.6	4.4	1.3
Race–ethnicity				
White	78.8	75.9	79.9	83.1
Black	8.8	9.2	10.7	6.3
Hispanic	7.6	10.5	6.4	4.4
Asian/Pacific Islander	4.0	3.6	2.9	5.3
American Indian/Alaskan Native	0.7	1.0	0.2	0.8
Marital status in 1989–90				
Not married[2]	86.7	80.2	91.5	96.6
Married	12.2	18.0	7.5	3.2
Separated	1.2	1.7	1.0	0.1
Dependency status in 1989–90				
Dependent	74.0	63.0	80.2	91.1
Single independent	10.9	14.9	10.9	4.3
Independent with dependents	15.1	22.1	9.0	4.5
Socioeconomic status in 1989–90[3]				
Lowest quartile	14.7	23.3	8.2	2.2
Middle quartiles	45.7	58.4	53.6	24.2
Highest quartile	39.7	18.3	38.2	73.7
Educational aspirations in 1989–90				
Trade school	9.1	14.2	8.0	1.9
2-year degree	12.8	18.4	10.6	6.2
Bachelor's degree	35.9	37.7	37.2	33.2
Advanced degree	42.1	29.6	44.2	58.7
SAT total score				
Less than 600	4.6	6.1	4.3	3.8
600–799	21.9	31.2	24.1	15.6
800–999	35.6	36.3	36.7	35.0
1,000–1,199	26.9	22.4	27.8	29.2
1,200–1,399	9.6	3.6	6.1	14.3
1,400 or more	1.4	0.3	1.0	2.1

[1] The highest educational attainment of either parent was no college for 43 percent of students, some college for 23 percent of students, and a bachelor's or advanced degree for 34 percent.

[2] "Not married" includes single, never married; living as married, never married; divorced; widowed; and living as married, previously divorced.

[3] These SES quartiles, defined in the NSPAS:90 data, include not only beginning postsecondary students but also all first-year students. Since students in the BPS:89/90 sample were more likely than other first-year students to be in the highest quartile, the percentage in the highest quartile in the total column is greater than 25.

NOTE: Details may not add to 100.0 due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1989–90 Beginning Postsecondary Students Longitudinal Study, Second Follow-up (BPS:90/94), Data Analysis System.

Table 56-2 Percentage distribution of 1989–90 beginning postsecondary students according to type of first institution, by parents' highest education level

Parent's highest education level	Public 4-year	Private, not-for-profit 4-year	Public 2-year	Other
Total	**28.5**	**13.7**	**43.7**	**14.1**
High school or less	20.4	8.4	51.2	20.0
Some college	33.9	13.2	40.4	12.6
Bachelor's or advanced degree	37.2	22.1	34.8	6.0

* The highest educational attainment of either parent was no college for 43 percent of students, some college for 23 percent of students, and a bachelor's degree or higher for 34 percent.

NOTE: Details may not add to 100.0 due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1989–90 Beginning Postsecondary Students Longitudinal Study, Second Follow-up (BPS:90/94), Data Analysis System.

Table 57-1 Minority field concentration ratio[1] and dissimilarity index[2] at the bachelor's degree level: Academic years ending 1977–96

Field of study	1977	1979	1981	1985	1987	1989	1990	1991	1992	1993	1994	1995	1996
							Black						
Humanities and social/behavioral sciences	1.02	1.03	1.01	0.98	0.94	0.92	0.93	0.93	0.93	0.94	0.96	0.96	0.97
Humanities	0.69	0.78	0.74	0.83	0.83	0.80	0.81	0.78	0.80	0.80	0.82	0.82	0.83
Social and behavioral sciences	1.32	1.27	1.27	1.13	1.06	1.04	1.05	1.07	1.07	1.08	1.09	1.10	1.10
Natural and computer sciences and engineering	0.60	0.61	0.66	0.75	0.90	0.94	0.95	0.96	0.95	0.94	0.91	0.90	0.90
Natural sciences	0.65	0.69	0.74	0.81	0.87	0.91	0.90	0.92	0.92	0.91	0.86	0.83	0.85
Life sciences	0.70	0.77	0.81	0.92	0.92	1.00	0.99	0.96	0.95	0.95	0.87	0.83	0.86
Physical sciences	0.45	0.44	0.57	0.58	0.73	0.72	0.73	0.79	0.77	0.72	0.71	0.72	0.72
Mathematics	0.78	0.85	0.82	0.91	0.93	0.95	0.88	0.96	1.00	1.00	1.00	1.00	0.98
Computer sciences and engineering	0.51	0.51	0.59	0.71	0.92	0.96	0.98	0.98	0.97	0.96	0.96	0.97	0.95
Computer and information sciences	0.91	0.91	0.83	0.98	1.44	1.68	1.71	1.59	1.61	1.67	1.70	1.68	1.55
Engineering	0.45	0.45	0.54	0.48	0.61	0.60	0.63	0.68	0.68	0.70	0.67	0.68	0.69
Engineering technologies	—	—	—	1.04	1.08	1.08	1.14	1.19	1.17	1.01	1.05	1.07	1.12
Technical and professional	1.11	1.11	1.11	1.11	1.07	1.06	1.06	1.06	1.06	1.05	1.06	1.06	1.05
Education	1.42	1.40	1.35	1.01	0.81	0.71	0.66	0.67	0.69	0.70	0.74	0.75	0.78
Business management	1.03	1.01	1.02	1.09	1.07	1.07	1.09	1.12	1.13	1.14	1.19	1.20	1.19
Health sciences	0.84	0.81	0.84	0.99	1.03	1.15	1.20	1.17	1.05	1.02	0.87	0.92	0.91
Other technical/professional	0.97	1.10	1.18	1.29	1.29	1.29	1.29	1.26	1.23	1.21	1.17	1.16	1.14
Dissimilarity index[2]	12.70	11.20	10.84	7.80	7.85	8.85	9.31	9.48	8.69	8.47	9.19	9.06	8.48
							Hispanic						
Humanities and social/behavioral sciences	1.23	1.22	1.20	1.15	1.11	1.14	1.13	1.10	1.17	1.18	1.21	1.22	1.22
Humanities	1.17	1.15	1.11	1.09	1.10	1.10	1.12	1.06	1.13	1.19	1.22	1.24	1.24
Social and behavioral sciences	1.29	1.28	1.29	1.20	1.13	1.18	1.14	1.13	1.22	1.17	1.20	1.20	1.21
Natural and computer sciences and engineering	0.85	0.88	0.91	0.92	1.05	1.05	1.07	1.07	1.03	0.99	0.96	0.94	0.92
Natural sciences	0.82	0.89	0.94	0.95	0.98	1.01	0.98	0.99	0.98	0.92	0.91	0.84	0.83
Life sciences	0.89	1.04	1.13	1.25	1.26	1.25	1.18	1.20	1.16	1.08	1.03	0.94	0.91
Physical sciences	0.71	0.66	0.70	0.64	0.77	0.77	0.70	0.71	0.63	0.64	0.65	0.55	0.56
Mathematics	0.76	0.76	0.72	0.67	0.62	0.72	0.80	0.80	0.88	0.77	0.87	0.83	0.86
Computer sciences and engineering	0.90	0.86	0.87	0.91	1.09	1.08	1.12	1.13	1.07	1.05	1.00	1.03	1.01
Computer and information sciences	0.73	0.84	0.89	0.84	1.11	1.15	1.18	1.26	1.20	1.09	1.03	1.14	1.02
Engineering	0.92	0.86	0.87	0.93	1.09	1.09	1.07	1.10	1.04	1.05	1.00	1.03	1.01
Engineering technologies	—	—	—	0.97	1.08	0.95	1.21	1.03	0.98	1.00	0.95	0.93	0.98
Technical/professional	0.89	0.91	0.92	0.95	0.92	0.90	0.90	0.92	0.88	0.88	0.87	0.87	0.87
Education	1.05	1.11	1.12	1.04	0.89	0.74	0.81	0.86	0.73	0.64	0.64	0.62	0.64
Business management	0.84	0.85	0.87	0.94	0.97	0.97	0.93	0.94	0.93	0.98	1.00	1.03	1.04
Health sciences	0.72	0.76	0.75	0.89	0.75	0.79	0.87	0.85	0.78	0.74	0.68	0.66	0.65
Other technical/professional	0.84	0.87	0.90	0.96	0.93	0.96	0.94	0.95	0.95	0.97	0.94	0.94	0.94
Dissimilarity index[2]	8.68	8.46	8.03	5.33	5.29	6.03	5.94	5.07	7.09	7.00	7.39	8.43	8.48

Table 57-1 Minority field concentration ratio[1] and dissimilarity index[2] at the bachelor's degree level: Academic years ending 1977–96—Continued

Field of study	1977	1979	1981	1985	1987	1989	1990	1991	1992	1993	1994	1995	1996
						Asian/Pacific Islander							
Humanities and social/behavioral sciences	0.96	0.92	0.87	0.82	0.86	0.88	0.87	0.86	0.88	0.88	0.90	0.90	0.91
Humanities	0.90	0.88	0.84	0.79	0.82	0.80	0.81	0.80	0.81	0.83	0.85	0.83	0.85
Social and behavioral sciences	1.02	0.96	0.89	0.84	0.90	0.95	0.93	0.93	0.94	0.93	0.96	0.97	0.97
Natural and computer sciences and engineering	1.55	1.69	1.89	2.01	2.13	2.23	2.35	2.38	2.32	2.26	2.15	2.11	2.07
Natural sciences	1.46	1.56	1.56	1.81	1.91	2.01	2.13	2.13	2.16	2.16	2.11	2.14	2.14
Life sciences	1.62	1.78	1.72	1.99	2.16	2.33	2.54	2.55	2.71	2.68	2.64	2.62	2.56
Physical sciences	1.06	1.07	1.21	1.20	1.38	1.47	1.63	1.62	1.46	1.45	1.26	1.36	1.45
Mathematics	1.48	1.65	1.78	2.35	2.00	1.88	1.67	1.64	1.46	1.44	1.41	1.41	1.34
Computer sciences and engineering	1.70	1.85	2.19	2.13	2.25	2.38	2.50	2.57	2.45	2.35	2.18	2.08	2.00
Computer and information sciences	1.74	1.85	2.29	2.12	2.17	2.41	2.58	2.52	2.48	2.56	2.39	2.30	2.22
Engineering	1.70	1.85	2.16	2.39	2.55	2.72	2.86	2.99	2.79	2.63	2.45	2.34	2.22
Engineering technologies	—	—	—	1.12	1.32	1.22	1.18	1.22	1.21	1.10	0.96	0.87	0.87
Technical/professional	0.86	0.83	0.78	0.69	0.65	0.68	0.68	0.69	0.71	0.72	0.73	0.73	0.73
Education	0.42	0.38	0.33	0.32	0.36	0.29	0.22	0.19	0.20	0.21	0.20	0.22	0.23
Business management	1.15	1.08	0.97	0.87	0.76	0.87	0.90	0.96	1.01	1.06	1.10	1.13	1.13
Health sciences	1.16	1.02	0.99	0.77	0.73	0.76	0.86	0.88	0.87	0.82	0.82	0.81	0.82
Other technical/professional	0.87	0.83	0.75	0.58	0.62	0.57	0.55	0.55	0.52	0.52	0.52	0.51	0.50
Dissimilarity Index[2]	13.10	13.80	16.12	21.81	22.93	21.51	21.70	21.30	20.06	20.16	19.80	20.33	19.92
						American Indian/Alaskan Native							
Humanities and social/behavioral sciences	1.02	1.08	1.14	1.09	1.11	1.02	1.05	1.00	1.03	1.08	1.08	1.06	1.06
Humanities	0.94	0.92	1.03	1.05	1.07	1.02	1.07	1.00	1.04	1.03	1.04	1.04	1.03
Social and behavioral sciences	1.10	1.23	1.25	1.14	1.16	1.02	1.03	0.99	1.02	1.13	1.11	1.07	1.09
Natural and computer sciences and engineering	0.76	0.75	0.69	0.87	0.87	0.94	0.83	0.91	0.87	0.89	0.87	0.89	0.85
Natural sciences	0.76	0.81	0.73	0.96	0.94	1.01	0.94	1.04	0.91	0.98	0.93	0.93	0.90
Life sciences	0.80	0.81	0.83	0.98	1.00	1.10	0.91	1.16	1.01	1.00	0.98	0.97	0.94
Physical sciences	0.81	0.72	0.69	0.92	0.91	0.93	1.14	1.04	0.85	1.09	0.86	0.92	0.90
Mathematics	0.50	0.95	0.43	0.94	0.83	0.89	0.81	0.76	0.70	0.79	0.82	0.77	0.70
Computer sciences and engineering	0.77	0.69	0.66	0.82	0.83	0.90	0.75	0.82	0.84	0.81	0.82	0.86	0.81
Computer and information sciences	0.66	0.35	0.38	0.86	0.81	0.86	0.96	0.92	0.85	0.84	0.74	0.98	0.75
Engineering	0.79	0.73	0.72	0.67	0.79	0.74	0.62	0.70	0.73	0.66	0.74	0.70	0.73
Engineering technologies	—	—	—	1.31	1.01	1.46	0.91	1.07	1.22	1.33	1.19	1.28	1.20
Technical/professional	1.06	1.03	1.02	1.00	0.99	1.00	1.02	1.03	1.02	0.98	0.99	1.00	1.01
Education	1.37	1.39	1.36	1.21	1.23	1.31	1.25	1.24	1.21	1.11	1.17	1.26	1.26
Business management	0.79	0.79	0.82	0.91	0.81	0.83	0.81	0.84	0.82	0.86	0.82	0.78	0.84
Health sciences	0.73	0.87	0.83	0.96	1.05	1.02	1.08	1.14	1.15	1.03	0.96	0.97	0.98
Other technical/professional	1.21	1.10	1.16	1.05	1.14	1.08	1.19	1.13	1.14	1.05	1.12	1.11	1.06
Dissimilarity Index[2]	9.98	10.29	10.47	5.75	7.23	6.24	7.32	5.76	6.26	5.32	6.19	6.46	5.70

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Table 57-1 Minority field concentration ratio[1] and dissimilarity index[2] at the bachelor's degree level: Academic years ending 1977–96—Continued

Field of study	1977	1979	1981	1985	1987	1989	1990	1991	1992	1993	1994	1995	1996
							Nonresident alien						
Humanities and social/behavioral sciences	0.73	0.76	0.69	0.69	0.65	0.65	0.68	0.71	0.73	0.74	0.73	0.75	0.76
Humanities	0.71	0.76	0.65	0.66	0.63	0.65	0.67	0.72	0.75	0.76	0.74	0.78	0.77
Social and behavioral sciences	0.75	0.76	0.73	0.71	0.68	0.66	0.69	0.70	0.71	0.73	0.72	0.72	0.75
Natural and computer sciences and engineering	2.32	2.39	2.48	1.96	2.06	2.21	2.32	2.20	2.19	2.07	1.91	1.80	1.71
Natural sciences	1.22	1.19	1.10	1.08	1.02	1.16	1.20	1.24	1.23	1.20	1.03	0.95	0.89
Life sciences	1.11	0.93	0.86	0.81	0.81	0.97	0.98	1.07	0.99	1.00	0.82	0.76	0.73
Physical sciences	1.44	1.50	1.23	1.08	1.09	1.34	1.45	1.40	1.44	1.57	1.31	1.17	1.06
Mathematics	1.30	1.61	1.72	1.77	1.42	1.39	1.44	1.49	1.66	1.35	1.36	1.38	1.34
Computer sciences and engineering	4.19	3.89	3.77	2.50	2.67	2.87	3.07	2.91	2.93	2.78	2.69	2.58	2.51
Computer and information sciences	2.48	2.28	2.21	1.91	2.54	3.14	3.45	3.54	3.81	3.92	3.86	3.56	3.30
Engineering	4.42	4.12	4.09	3.43	3.48	3.64	3.84	3.08	3.06	2.89	2.73	2.66	2.59
Engineering technologies	—	—	—	2.21	1.76	1.27	1.50	1.53	1.28	0.95	1.05	1.06	1.17
Technical/professional	0.77	0.70	0.68	0.78	0.79	0.81	0.80	0.84	0.84	0.87	0.91	0.92	0.94
Education	0.30	0.36	0.35	0.37	0.31	0.23	0.23	0.26	0.20	0.19	0.19	0.19	0.24
Business management	1.28	1.04	0.94	1.07	1.14	1.21	1.21	1.29	1.36	1.45	1.64	1.77	1.83
Health sciences	0.64	0.48	0.37	0.42	0.41	0.47	0.54	0.61	0.55	0.53	0.45	0.38	0.39
Other technical/professional	0.73	0.69	0.73	0.72	0.66	0.67	0.66	0.64	0.61	0.60	0.59	0.56	0.55
Dissimilarity Index[2]	24.88	22.44	22.47	20.38	23.87	25.29	25.73	26.07	27.38	28.11	30.32	31.08	30.94

— Data not available for field of study prior to 1985.

[1] The minority field concentration ratio is calculated as the percentage of a minority group earning bachelor's degrees who majored in a selected field of study divided by the percentage of whites earning bachelor's degrees who majored in the same field. For example, the 1996 black-to-white concentration ratio for education = 7.8/10.1 = 0.78. A value greater than 1 indicates that minority graduates are more likely to major in that field than whites, whereas a value less than 1 indicates that minority graduates are less likely to major in that field than whites.

[2] The dissimilarity index represents the percentage of students in a minority group who would need to change fields in order to make their percentage distribution across fields the same as the distribution of white students. It is calculated as the sum of the absolute difference between the percentages of minority and white students majoring in each field divided by 2.

NOTE: Analysis includes only those degree recipients whose race-ethnicity and field of study were known. See the supplemental note to this indicator for a description of fields of study.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics*, various years (based on IPEDS "Completions" surveys).

Classification of fields of study

The data on the number of bachelor's degrees conferred by specific fields of study were obtained from the Higher Education General Information Survey (HEGIS) "Degrees and Other Formal Awards Conferred" surveys and the Integrated Postsecondary Education Data System (IPEDS) "Completions" surveys. The list below shows how related degree fields were reclassified into consolidated degree fields for this analysis.

In the 1991–92 academic year, a new classification of instructional programs was initiated. When necessary, the figures for earlier years were reclassified to make them conform to the new taxonomy. The classifications for all other fields not shown in the table did not change.

To facilitate trend comparisons, certain aggregations were made of the degree fields as reported in the IPEDS "Completions" surveys: "Agriculture and Natural Resources" includes agricultural business and production, agricultural sciences, and conservation and renewable natural resources; "Business Management and Administrative Services" includes business management and administrative services, marketing operations/marketing and distribution, and consumer and personal services; and "Engineering Technologies" includes engineering-related technologies, mechanics and repairers, and construction trades.

Consolidated degree field	Degree fields
Humanities	Area and ethnic studies
	English language and literature/letters
	Foreign languages
	Liberal/general studies
	Multi/interdisciplinary studies
	Philosophy and religion
	Theology
	Visual and performing arts
Social/behavioral sciences	Psychology
	Social sciences and history
Natural sciences	Biological sciences/life sciences
	Mathematics
	Physical sciences
Engineering and engineering technologies	Engineering
	Engineering-related technologies
Construction trades	Mechanics and repairs
Other technical/professional	Agriculture
	Architecture
	Communications
	Communication technology
	Home economics
	Law
	Library/archival sciences
	Military sciences
	Parks and recreation
	Precision production trades
	Protective sciences
	Public administration and services
	Transportation and material moving

SOURCE: U.S. Department of Eduation, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), "Completions" surveys.

Table 58-1 Female field concentration ratio[1] and dissimilarity index[2] of master's degrees conferred, by field of study: Academic years ending 1971–96

Field of study	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983
Humanities	1.58	1.52	1.45	1.34	1.32	1.24	1.17	1.16	1.12	1.08	1.03	1.08	1.06
Social and behavioral sciences	0.69	0.69	0.68	0.67	0.69	0.73	0.76	0.77	0.84	0.88	0.91	0.92	0.99
Natural sciences	0.48	0.48	0.44	0.43	0.41	0.41	0.44	0.42	0.44	0.43	0.43	0.45	0.48
Life sciences	0.76	0.72	0.62	0.58	0.53	0.54	0.57	0.59	0.62	0.60	0.63	0.69	0.77
Physical sciences	0.23	0.24	0.22	0.22	0.21	0.20	0.22	0.22	0.23	0.23	0.26	0.27	0.27
Mathematics	0.56	0.58	0.56	0.53	0.54	0.53	0.55	0.50	0.49	0.51	0.45	0.43	0.47
Computer sciences and engineering	0.03	0.04	0.04	0.05	0.05	0.06	0.07	0.09	0.09	0.11	0.12	0.14	0.15
Computer and information sciences	0.17	0.19	0.17	0.20	0.21	0.20	0.22	0.25	0.24	0.27	0.30	0.35	0.39
Engineering and engineering technologies	0.02	0.02	0.02	0.03	0.03	0.04	0.05	0.06	0.07	0.08	0.09	0.10	0.10
Technical/professional	1.27	1.25	1.26	1.26	1.24	1.23	1.23	1.24	1.22	1.23	1.24	1.25	1.25
Education	1.92	1.98	1.98	1.99	2.04	2.10	2.18	2.26	2.28	2.42	2.48	2.54	2.64
Business management	0.06	0.06	0.07	0.09	0.11	0.15	0.19	0.22	0.25	0.30	0.33	0.38	0.41
Health professions	1.85	1.90	1.91	2.00	1.99	2.29	2.37	2.53	2.54	2.66	2.80	3.03	3.01
Other technical/ professional[3]	1.56	1.46	1.34	1.24	1.15	1.08	1.04	1.07	1.08	1.10	1.14	1.15	1.22
Not classified	—	—	—	—	—	—	—	—	—	—	—	—	—
Dissimilarity index[2]	37.9	38.0	37.2	36.0	35.9	35.8	35.1	35.7	35.3	35.3	35.1	35.0	34.9

Field of study	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
Humanities	1.08	1.12	1.12	1.06	1.06	1.07	1.06	1.10	1.08	1.08	1.09	1.07	1.03
Social and behavioral sciences	1.04	1.06	1.08	1.05	1.06	1.07	1.06	1.11	1.05	1.08	1.10	1.12	1.12
Natural sciences	0.52	0.52	0.53	0.55	0.54	0.56	0.55	0.56	0.54	0.55	0.55	0.55	0.57
Life sciences	0.82	0.91	0.91	0.91	0.92	0.92	0.93	0.93	0.91	0.87	0.92	0.87	0.88
Physical sciences	0.31	0.30	0.32	0.32	0.31	0.34	0.32	0.33	0.32	0.35	0.35	0.35	0.37
Mathematics	0.50	0.49	0.50	0.57	0.58	0.57	0.55	0.56	0.54	0.55	0.51	0.53	0.50
Computer sciences and engineering	0.18	0.18	0.20	0.20	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19
Computer and information sciences	0.42	0.40	0.42	0.40	0.35	0.36	0.35	0.36	0.33	0.31	0.29	0.29	0.29
Engineering and engineering technologies	0.12	0.12	0.13	0.14	0.13	0.14	0.14	0.14	0.15	0.15	0.15	0.16	0.16
Technical/professional	1.25	1.26	1.26	1.28	1.29	1.29	1.27	1.28	1.27	1.27	1.27	1.26	1.24
Education	2.63	2.64	2.66	2.71	2.83	2.84	2.83	2.83	2.85	2.81	2.75	2.65	2.53
Business management	0.44	0.45	0.45	0.47	0.48	0.47	0.46	0.47	0.46	0.47	0.48	0.48	0.47
Health professions	3.16	3.23	3.16	3.58	3.40	3.30	3.14	3.27	3.32	3.31	3.19	2.96	2.96
Other technical/ professional[3]	1.25	1.29	1.27	1.28	1.27	1.30	1.32	1.31	1.34	1.35	1.33	1.34	1.28
Not classified	—	—	—	—	1.14	0.71	1.37	0.71	0.68	0.64	1.05	0.18	—
Dissimilarity index[2]	34.25	34.72	34.76	34.36	34.73	35.32	35.09	35.07	35.59	35.83	35.05	34.52	33.59

— Not applicable

[1] The female field concentration ratio is calculated as the percentage of females earning degrees who majored in a specific field divided by the percentage of males earning degrees who majored in the same field. For example, the 1996 female-to-male concentration ratio for education = 35.72/14.11 = 2.53. A value greater than 1 indicates that females are more likely to earn a graduate degree in that field than males, whereas a value less than 1 indicates that females are less likely to earn a graduate degree in that field than males. Includes degrees conferred to U.S. and non-U.S. citizens.

[2] The dissimilarity index represents the percentage distribution of female students who would need to switch fields of study to match the percentage distribution of male students across fields of study. It is calculated as the sum of the absolute difference between the percentages of male and female students majoring in each field divided by 2.

[3] Principally composed of public administration at the master's degree level.

NOTE: Data for 1988 through 1995 are revised from previously published figures. See the supplemental note to *Indicator 57* for a description of fields of study.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Chartbook of Degrees Conferred, 1969–70 to 1993–94*, *Degrees and Other Awards Conferred by Institutions of Higher Education: 1994–95*, and *Digest of Education Statistics* (based on IPEDS "Completions" surveys).

Table 58-2 Minority field concentration ratio[1] and dissimilarity index[2] of master's degrees conferred, by field of study: Academic years ending 1979–96

Field of study	1979	1981	1985	1987	1989	1990	1991	1992	1993	1994	1995	1996
						Black						
Humanities	0.46	0.51	0.52	0.54	0.55	0.56	0.56	0.64	0.66	0.63	0.67	0.62
Social and behavioral sciences	0.91	0.90	0.93	0.92	0.92	0.96	1.00	0.97	0.92	0.89	0.98	1.02
Natural sciences	0.38	0.43	0.47	0.55	0.46	0.48	0.59	0.55	0.56	0.56	0.61	0.56
Life sciences	0.48	0.46	0.59	0.73	0.56	0.51	0.65	0.68	0.61	0.54	0.55	0.56
Physical sciences	0.25	0.37	0.34	0.34	0.34	0.41	0.38	0.47	0.48	0.53	0.56	0.40
Mathematics	0.39	0.50	0.45	0.59	0.50	0.53	0.78	0.49	0.59	0.61	0.78	0.78
Computer sciences and engineering	0.32	0.36	0.51	0.59	0.55	0.59	0.64	0.69	0.67	0.68	0.69	0.69
Computer and information sciences	0.37	0.35	0.67	0.73	0.68	0.81	0.97	1.06	0.97	1.12	1.00	1.07
Engineering and engineering technologies	0.31	0.36	0.46	0.54	0.50	0.50	0.52	0.57	0.58	0.56	0.60	0.59
Technical/professional	1.17	1.16	1.15	1.15	1.15	1.13	1.12	1.10	1.10	1.11	1.09	1.09
Education	1.48	1.47	1.47	1.34	1.29	1.24	1.21	1.21	1.17	1.14	1.18	1.13
Business management	0.66	0.70	0.76	0.87	0.91	0.90	0.91	0.90	0.95	1.01	0.94	1.01
Health professions	0.77	0.88	0.90	0.90	0.90	0.89	0.94	0.88	0.86	0.85	0.81	0.80
Other technical/professional[3]	1.10	1.16	1.32	1.36	1.39	1.49	1.39	1.36	1.40	1.38	1.33	1.34
Dissimilarity index[2]	28.93	27.14	26.03	22.12	21.41	20.45	17.25	16.30	15.68	15.27	14.54	14.02
						Hispanic						
Humanities	1.06	0.94	1.00	0.90	1.09	1.10	1.05	1.11	1.01	1.07	1.00	0.97
Social and behavioral sciences	1.12	1.06	1.22	1.09	1.21	1.19	1.15	1.10	1.14	1.11	1.10	1.14
Natural sciences	0.52	0.55	0.86	0.83	0.74	0.73	0.87	0.92	0.91	0.76	0.61	0.72
Life sciences	0.52	0.49	0.87	0.71	0.98	0.81	0.87	1.19	1.12	0.84	0.55	0.78
Physical sciences	0.53	0.50	0.84	0.93	0.65	0.68	0.78	0.79	0.86	0.74	0.56	0.59
Mathematics	0.50	0.79	0.85	0.85	0.47	0.66	0.97	0.73	0.71	0.67	0.78	0.78
Computer sciences and engineering	0.81	0.97	0.84	1.14	1.04	0.94	1.00	1.05	1.03	1.02	1.05	0.98
Computer and information sciences	0.48	0.79	0.71	0.85	0.92	0.78	0.84	0.97	0.93	0.92	1.00	0.84
Engineering and engineering technologies	0.88	1.02	0.88	1.25	1.08	1.00	1.06	1.08	1.06	1.05	0.60	1.02
Technical/professional	1.03	1.03	1.01	1.00	0.98	0.99	0.98	0.98	0.99	0.99	0.99	1.01
Education	1.22	1.28	1.30	1.12	1.03	1.09	1.10	1.03	1.02	1.05	1.18	1.09
Business management	0.66	0.68	0.70	0.87	0.91	0.86	0.84	0.85	0.88	0.92	0.94	0.92
Health professions	0.63	0.66	0.66	0.78	0.82	0.85	0.77	0.83	0.78	0.74	0.81	0.76
Other technical/professional[3]	1.09	1.09	1.12	1.08	1.09	1.11	1.13	1.16	1.23	1.14	1.11	1.11
Dissimilarity index[2]	13.67	13.50	12.57	7.57	5.88	7.11	7.13	6.55	5.82	5.76	6.06	6.13

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Table 58-2 Minority field concentration ratio[1] and dissimilarity index[2] of master's degrees conferred, by field of study: Academic years ending 1979–96—Continued

Field of study	1979	1981	1985	1987	1989	1990	1991	1992	1993	1994	1995	1996
Asian/Pacific Islander												
Humanities	0.75	0.71	0.75	0.78	0.84	0.81	0.79	0.82	0.85	0.85	0.76	0.80
Social and behavioral sciences	0.85	0.74	0.90	0.68	0.69	0.73	0.69	0.70	0.67	0.70	0.63	0.66
Natural sciences	1.69	1.35	1.58	1.67	1.67	1.67	1.76	1.86	1.75	1.78	1.79	1.79
Life sciences	1.59	1.07	1.26	1.34	1.41	1.49	1.57	1.72	1.94	1.81	2.00	2.05
Physical sciences	1.66	1.43	1.48	1.59	1.70	1.62	1.83	2.05	1.62	1.69	1.58	1.51
Mathematics	2.00	1.97	2.52	2.44	2.08	2.05	1.95	1.82	1.69	1.84	1.77	1.73
Computer sciences and engineering	3.70	4.02	3.72	3.69	3.66	3.66	3.90	4.01	3.56	3.59	3.57	3.47
Computer and information sciences	2.99	3.80	4.11	4.41	4.18	4.56	5.00	5.31	4.98	5.40	5.11	4.94
Engineering and engineering technologies	3.86	4.08	3.59	3.42	3.46	3.32	3.51	3.59	3.14	3.07	3.12	3.04
Technical/professional	0.82	0.82	0.72	0.71	0.71	0.72	0.72	0.72	0.76	0.76	0.79	0.80
Education	0.46	0.45	0.36	0.30	0.32	0.33	0.34	0.32	0.34	0.35	0.35	0.34
Business management	1.35	1.32	1.09	1.15	1.19	1.17	1.17	1.18	1.30	1.29	1.29	1.35
Health professions	1.26	1.21	0.94	0.83	0.80	0.89	0.81	0.82	0.81	0.82	1.09	1.11
Other technical/ professional[3]	1.01	0.85	0.69	0.73	0.69	0.71	0.69	0.70	0.68	0.67	0.69	0.69
Dissimilarity index[2]	39.10	40.99	47.02	51.47	51.06	49.27	51.03	51.19	47.62	47.40	45.19	44.37
American Indian/Alaskan Native												
Humanities	0.79	0.76	0.83	1.15	0.85	1.04	0.75	1.04	1.02	1.00	0.93	0.97
Social and behavioral sciences	0.94	1.10	0.98	0.86	1.26	1.24	1.28	1.08	1.40	1.12	1.45	1.27
Natural sciences	1.05	0.69	0.81	0.47	0.88	0.72	0.91	0.82	1.05	0.73	1.03	0.56
Life sciences	0.68	0.67	0.79	0.58	0.94	0.87	0.83	0.81	1.63	0.84	1.01	0.67
Physical sciences	1.65	0.62	0.90	0.46	0.96	0.63	0.94	1.22	0.79	0.86	1.23	0.47
Mathematics	0.85	0.86	0.67	0.29	0.63	0.60	0.98	0.33	0.63	0.40	0.79	0.48
Computer sciences and engineering	0.81	0.77	0.95	0.96	0.90	0.58	0.71	0.74	0.74	0.69	0.61	0.75
Computer and information sciences	1.76	0.99	1.70	0.94	1.72	0.29	0.68	0.72	0.63	0.70	0.68	0.95
Engineering and engineering technologies	0.60	0.71	0.69	0.97	0.60	0.69	0.72	0.75	0.77	0.68	0.59	0.69
Technical/professional	1.04	1.06	1.04	1.03	1.01	1.04	1.04	1.02	0.98	1.03	1.00	1.02
Education	1.20	1.28	1.32	1.21	1.20	1.27	1.22	1.22	1.12	1.24	1.11	1.15
Business management	0.81	0.76	0.88	0.66	0.70	0.71	0.74	0.71	0.80	0.75	0.84	0.77
Health professions	1.10	0.89	0.75	0.82	1.08	1.11	1.20	1.03	1.12	1.00	0.94	0.97
Other technical/ professional[3]	0.88	1.02	0.89	1.43	1.15	1.07	1.11	1.15	0.94	1.09	1.06	1.19
Dissimilarity index[2]	11.91	13.89	12.43	15.23	12.57	14.91	13.77	11.77	9.63	11.68	8.99	11.15

[1] The minority field concentration ratio is calculated as the percentage of a minority group earning master's degrees who majored in a selected field of study divided by the percentage of whites earning master's degrees who majored in the same field. For example, the 1996 black-to-white concentration ratio for education = 33.2/29.3 = 1.13. A value greater than 1 indicates that minority graduates are more likely to major in that field than whites, whereas a value less than 1 indicates that minority graduates are less likely to major in that field than whites.

[2] The dissimilarity index represents the percentage distribution of students in a minority group who would need to switch fields of study to match the percentage distribution of white students across fields of study. It is calculated as the sum of the absolute difference between the percentages of minority and white students majoring in each field divided by 2.

[3] Principally composed of public administration at the master's degree level.

NOTE: Analysis includes only those degree recipients whose racial-ethnic group and field of study were known. See the supplemental note to *Indicator 57* for a description of fields of study.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics*, various years (based on IPEDS "Completions" surveys).

Table 58-3 Female field concentration ratio[1] and dissimilarity index[2] of doctor's degrees conferred, by field of study: Academic years ending 1971–96

Field of study	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983
Humanities	1.89	1.87	1.77	1.71	1.59	1.50	1.41	1.32	1.18	1.10	1.15	1.15	1.09
Social and behavioral sciences	1.29	1.22	1.21	1.28	1.26	1.21	1.29	1.23	1.28	1.30	1.26	1.26	1.38
Natural sciences	0.67	0.66	0.65	0.63	0.62	0.57	0.56	0.57	0.59	0.56	0.56	0.57	0.59
Life sciences	1.17	1.09	1.12	1.08	1.04	0.92	0.84	0.89	0.88	0.83	0.87	0.87	0.96
Physical sciences	0.36	0.38	0.33	0.32	0.33	0.32	0.33	0.31	0.33	0.34	0.30	0.34	0.33
Mathematics	0.50	0.45	0.48	0.43	0.44	0.40	0.46	0.49	0.50	0.37	0.40	0.33	0.40
Computer sciences and engineering	0.04	0.05	0.09	0.08	0.09	0.10	0.11	0.08	0.11	0.11	0.11	0.13	0.11
Computer and information sciences	0.14	0.41	0.38	0.20	0.26	0.35	0.30	0.23	0.37	0.30	0.24	0.19	0.30
Engineering and engineering technologies	0.04	0.03	0.07	0.07	0.08	0.08	0.09	0.07	0.09	0.09	0.09	0.12	0.09
Technical/professional	1.27	1.28	1.23	1.21	1.26	1.33	1.32	1.41	1.43	1.51	1.54	1.56	1.50
Education	1.60	1.61	1.48	1.52	1.61	1.66	1.61	1.79	1.84	1.86	1.98	1.99	1.99
Business management	0.17	0.12	0.28	0.24	0.16	0.19	0.21	0.26	0.34	0.41	0.39	0.47	0.41
Health professions	1.19	1.18	1.53	1.24	1.48	1.36	1.46	1.75	1.49	1.91	1.71	1.78	1.57
Other technical/professional[3]	0.76	0.77	0.81	0.70	0.72	0.89	0.88	0.80	0.77	0.87	0.87	0.93	0.83
Not classified	—	—	—	—	—	—	—	—	—	—	—	—	—
Dissimilarity index[2]	28.31	27.20	25.26	25.99	25.49	24.14	24.08	24.59	23.98	24.23	24.95	24.67	25.70

Field of study	1984	1985	1986	1987	1988[4]	1989[4]	1990[4]	1991[4]	1992[4]	1993[4]	1994[4]	1995[4]	1996
Humanities	1.08	1.07	1.08	1.08	1.05	1.05	1.06	1.13	1.13	1.13	1.09	1.10	1.16
Social and behavioral sciences	1.37	1.38	1.42	1.43	1.53	1.48	1.58	1.70	1.51	1.57	1.54	1.55	1.62
Natural sciences	0.57	0.60	0.58	0.61	0.63	0.64	0.65	0.63	0.69	0.70	0.68	0.69	0.69
Life sciences	0.88	0.94	0.93	0.99	1.01	1.00	1.06	1.00	1.05	1.08	1.09	1.04	1.09
Physical sciences	0.35	0.37	0.37	0.38	0.41	0.43	0.42	0.42	0.47	0.45	0.44	0.47	0.45
Mathematics	0.42	0.35	0.37	0.38	0.35	0.42	0.38	0.40	0.46	0.51	0.45	0.44	0.39
Computer sciences and engineering	0.12	0.14	0.15	0.15	0.15	0.18	0.19	0.18	0.19	0.18	0.21	0.22	0.22
Computer and information sciences	0.23	0.22	0.28	0.30	0.23	0.32	0.30	0.27	0.26	0.27	0.29	0.34	0.26
Engineering and engineering technologies	0.12	0.13	0.13	0.14	0.14	0.17	0.17	0.17	0.18	0.17	0.20	0.21	0.22
Technical/professional	1.54	1.57	1.61	1.65	1.68	1.73	1.69	1.69	1.77	1.74	1.76	1.73	1.72
Education	1.99	2.09	2.10	2.18	2.24	2.33	2.34	2.33	2.48	2.36	2.48	2.51	2.48
Business management	0.54	0.40	0.52	0.58	0.58	0.65	0.59	0.60	0.51	0.63	0.63	0.57	0.61
Health professions	2.03	2.17	1.94	2.12	2.40	2.36	2.06	2.25	2.33	2.19	2.25	2.13	1.97
Other technical/professional[3]	0.88	0.89	1.00	1.01	1.02	0.98	1.00	0.98	1.01	1.09	1.07	1.05	1.09
Not classified	—	—	—	—	1.33	0.34	1.20	1.30	0.78	0.31	1.14	0.00	—
Dissimilarity index[2]	25.78	26.36	26.41	26.84	27.77	27.71	28.32	29.38	28.89	29.20	28.78	28.07	29.14

— Not applicable.

[1] The female field concentration ratio is calculated as the percentage of females earning degrees who majored in a specific field divided by the percentage of males earning degrees who majored in the same field. Includes degrees conferred to U.S. and non-U.S. citizens.

[2] The dissimilarity index represents the percentage distribution of female students who would need to switch fields of study to match the percentage distribution of male students across fields of study. It is calculated as the sum of the absolute difference between the percentages of male and female students majoring in each field divided by 2.

[3] Principally composed of agriculture and natural resources at the doctor's degree level.

[4] Data for 1988 through 1995 are revised from previously published figures.

NOTE: See the supplemental note to *Indicator 57* for a description of fields of study.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Chartbook of Degrees Conferred, 1969–70 to 1993–94*, *Degrees and Other Awards Conferred by Institutions of Higher Education: 1994–95*, and *Digest of Education Statistics* (based on IPEDS "Completions" surveys).

Table 59-1 Percentage of 25- to 29-year-olds who completed high school, by race–ethnicity and sex: March 1971–98

March	All			White			Black			Hispanic		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
1971	77.7	79.1	76.5	81.7	83.0	80.5	58.8	56.7	60.5	48.3	51.3	45.7
1972	79.8	80.5	79.2	83.4	84.1	82.7	64.1	61.7	66.0	47.6	47.1	47.9
1973	80.2	80.6	79.8	84.0	84.2	83.9	64.1	63.2	64.9	52.3	54.2	50.6
1974	81.9	83.1	80.8	85.5	86.0	85.0	68.4	71.5	65.8	54.1	55.9	52.5
1975	83.1	84.5	81.7	86.6	88.0	85.2	71.1	72.3	70.1	53.1	52.2	53.9
1976	84.7	86.0	83.5	87.7	89.0	86.4	74.0	72.8	74.9	58.1	57.6	58.4
1977	85.4	86.6	84.2	88.6	89.2	88.0	74.5	77.5	72.0	58.0	61.9	54.6
1978	85.3	86.0	84.6	88.5	88.8	88.2	77.4	78.7	76.3	56.5	58.5	54.6
1979	85.6	86.3	84.9	89.2	89.8	88.5	74.7	74.0	75.3	57.1	55.5	58.6
1980	85.4	85.4	85.5	89.2	89.1	89.2	76.7	74.8	78.3	57.9	57.0	58.8
1981	86.3	86.5	86.1	89.8	89.7	89.9	77.6	78.8	76.6	59.8	59.1	60.4
1982	86.2	86.3	86.1	89.1	89.1	89.1	81.0	80.4	81.5	61.0	60.6	61.2
1983	86.0	86.0	86.0	89.3	89.3	89.3	79.5	79.0	79.9	58.4	57.8	58.9
1984	85.9	85.6	86.3	89.4	89.4	89.4	79.1	75.9	81.7	58.6	56.7	60.1
1985	86.2	85.9	86.4	89.5	89.2	89.9	80.5	80.6	80.5	61.0	58.6	63.1
1986	86.1	85.9	86.4	89.6	88.7	90.4	83.5	86.4	81.0	59.1	58.2	60.0
1987	86.0	85.5	86.4	89.4	88.9	90.0	83.5	84.5	82.6	59.8	58.6	61.0
1988	85.9	84.7	87.1	89.7	88.4	90.9	80.9	80.9	80.9	62.3	59.9	64.8
1989	85.5	84.4	86.5	89.3	88.2	90.4	82.3	80.5	83.8	61.0	61.0	61.1
1990	85.7	84.4	87.0	90.1	88.6	91.6	81.8	81.4	82.0	58.2	56.6	59.9
1991	85.4	84.9	85.8	89.8	89.2	90.5	81.8	83.6	80.1	56.7	56.4	57.2
1992	86.3	86.1	86.5	90.6	90.3	91.1	80.9	82.7	79.3	60.9	61.1	60.6
1993	86.7	86.0	87.4	91.2	90.7	91.8	82.7	84.8	80.8	60.9	58.2	63.9
1994	86.1	84.5	87.6	91.1	90.0	92.3	84.1	82.8	85.3	60.3	58.0	63.0
1995	86.9	86.3	87.4	92.5	92.0	93.0	86.8	88.4	85.3	57.2	55.7	58.7
1996	87.3	86.5	88.1	92.6	92.0	93.1	86.0	87.9	84.5	61.1	59.7	62.9
1997	87.4	85.8	88.9	92.9	91.7	94.0	86.9	85.8	87.8	61.8	59.2	64.8
1998	88.1	86.6	89.6	93.6	92.5	94.6	88.2	88.4	88.1	62.8	59.9	66.3

NOTE: The Current Population Survey (CPS) questions used to obtain educational attainment were changed in 1992. See the supplemental note to this indicator for further discussion. In 1994, the survey instrument for the CPS was changed and weights were adjusted. See the supplemental note to *Indicator 51* for further discussion. Included in totals but not shown separately are other racial–ethnic groups.

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

Table 59-2 Percentage of 25- to 29-year-old high school completers with some college, by race–ethnicity and sex: March 1971–98

	All			White			Black			Hispanic		
March	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
1971	43.6	48.7	38.4	44.9	50.2	39.5	30.9	29.0	32.2	30.6	38.3	22.8
1972	45.1	50.7	39.5	46.3	52.3	40.2	33.3	31.7	34.6	32.1	37.2	28.3
1973	45.3	51.4	39.4	46.6	53.0	40.2	33.5	33.5	33.5	31.6	39.4	24.5
1974	48.9	53.8	44.1	50.4	55.6	45.2	35.4	36.9	34.1	39.2	44.1	34.5
1975	50.1	56.0	44.1	51.2	57.3	44.9	38.7	41.0	36.8	41.1	50.4	32.6
1976	52.1	58.2	46.0	53.8	60.1	47.4	37.2	40.5	34.7	36.3	42.3	31.2
1977	53.2	58.0	48.5	54.8	59.9	49.7	41.7	44.2	39.6	41.1	42.6	39.5
1978	54.4	59.3	49.6	55.9	61.4	50.3	44.9	45.2	44.4	43.6	47.2	40.1
1979	54.1	57.7	50.6	55.7	59.4	51.9	41.7	40.7	42.5	44.0	50.7	38.0
1980	52.3	55.8	49.0	53.8	57.3	50.3	42.3	43.6	41.3	39.9	45.5	34.7
1981	50.1	52.7	47.5	51.2	54.1	48.3	42.5	43.0	42.2	39.6	41.7	37.7
1982	49.9	51.5	48.3	50.7	52.2	49.1	45.8	47.4	44.6	39.6	40.6	38.7
1983	50.6	52.1	49.0	51.6	53.4	49.7	41.6	42.0	41.2	42.9	41.1	44.6
1984	50.1	50.9	49.3	51.0	51.7	50.3	41.6	41.6	41.7	45.6	47.5	44.0
1985	50.8	51.5	50.1	51.8	52.5	51.2	42.7	42.4	42.9	44.2	45.9	42.9
1986	51.0	51.4	50.8	52.3	52.8	51.8	43.4	41.5	45.2	42.9	42.8	43.0
1987	50.7	50.4	51.0	51.4	51.5	51.4	43.0	38.4	47.0	44.6	46.3	43.1
1988	50.8	51.6	50.1	51.8	52.4	51.2	41.2	42.9	39.7	44.9	44.3	45.6
1989	51.3	52.0	50.5	52.8	53.4	52.2	42.1	42.2	41.9	44.3	44.8	43.9
1990	52.0	51.8	52.1	53.6	53.4	53.8	44.1	43.0	45.0	40.1	40.4	39.8
1991	53.1	52.3	53.8	54.9	54.7	55.1	43.2	38.3	47.7	42.2	40.9	43.4
1992	56.7	56.0	57.4	58.8	58.3	59.2	44.7	42.3	46.9	46.8	44.5	49.6
1993	58.9	57.6	60.1	61.0	60.3	61.6	48.4	43.6	52.5	48.8	46.1	51.9
1994	60.5	58.9	62.0	62.7	61.0	64.3	49.6	48.7	50.3	51.5	48.3	55.0
1995	62.2	60.6	63.9	64.6	62.6	66.7	52.0	51.2	52.5	50.3	48.0	52.7
1996	64.7	63.1	66.3	67.0	65.5	68.4	55.9	54.5	57.1	50.9	47.0	55.6
1997	65.4	64.0	66.8	68.2	66.9	69.5	53.7	50.2	56.5	53.9	51.9	56.1
1998	65.6	63.0	68.1	68.5	66.2	70.8	56.6	52.9	59.7	51.7	48.9	54.7

NOTE: The Current Population Survey (CPS) questions used to obtain educational attainment were changed in 1992. See the supplemental note to this indicator for further discussion. In 1994, the survey instrument for the CPS was changed and weights were adjusted. See the supplemental note to *Indicator 51* for further discussion. Included in totals but not shown separately are other racial–ethnic groups.

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

Table 59-3 Percentage of 25- to 29-year-old high school completers with a bachelor's degree or higher, by race–ethnicity and sex: March 1971–98

	All			White			Black			Hispanic		
March	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
1971	22.0	25.8	18.1	23.1	27.0	19.1	11.5	12.1	10.9	10.5	15.4	5.8
1972	23.7	27.3	20.2	24.9	28.6	21.1	13.1	11.6	14.3	7.8	9.5	6.4
1973	23.6	26.8	20.5	24.8	28.3	21.3	12.7	11.3	13.8	10.8	12.4	9.7
1974	25.3	28.7	21.8	27.2	31.1	23.2	11.5	12.3	11.0	10.1	8.9	11.2
1975	26.3	29.7	22.9	27.5	31.1	23.7	14.7	15.3	14.2	16.6	19.7	13.4
1976	28.0	32.0	24.1	29.3	33.5	25.0	17.6	16.5	18.6	12.7	17.9	8.2
1977	28.1	31.2	25.1	29.8	33.4	26.3	16.9	16.5	17.3	11.5	11.3	11.7
1978	27.3	30.2	24.4	28.9	32.6	25.3	15.2	13.6	16.5	17.1	16.4	17.9
1979	27.0	29.9	24.2	28.6	31.6	25.5	16.6	17.8	15.7	12.9	14.2	11.4
1980	26.3	28.1	24.5	28.0	30.1	26.0	15.0	14.0	15.8	13.2	15.0	11.8
1981	24.7	26.6	22.8	26.3	28.4	24.2	14.9	15.4	14.5	12.5	14.4	10.9
1982	25.2	26.9	23.4	26.7	28.8	24.6	15.6	14.6	16.4	15.9	17.8	14.2
1983	26.2	27.8	24.6	27.4	29.4	25.4	16.2	16.5	15.9	17.8	16.8	18.8
1984	25.5	27.1	24.0	27.0	28.5	25.4	14.8	17.1	13.0	18.1	17.0	19.2
1985	25.7	26.9	24.6	27.3	28.6	26.0	14.4	12.9	15.6	18.2	18.6	17.7
1986	26.0	26.7	25.3	28.1	29.1	27.1	14.2	11.9	16.3	15.3	15.4	15.2
1987	25.6	26.1	25.2	27.6	28.0	27.1	13.8	14.0	13.6	14.5	15.7	13.4
1988	26.4	27.6	25.2	28.0	29.1	26.9	14.8	15.3	14.4	18.1	19.8	16.3
1989	27.3	28.3	26.5	29.5	30.5	28.5	15.4	15.0	15.6	16.5	15.7	17.2
1990	27.1	28.0	26.2	29.3	30.0	28.6	16.4	18.6	14.5	14.0	12.9	15.2
1991	27.2	27.0	27.3	29.7	29.7	29.8	13.4	13.7	13.1	16.3	14.4	18.1
1992	27.3	26.9	27.8	30.0	29.5	30.4	13.7	14.2	13.2	15.6	14.3	17.0
1993	27.3	27.2	27.4	29.8	30.0	29.5	16.1	14.8	17.2	13.6	12.1	15.3
1994	27.0	26.6	27.4	29.7	29.8	29.6	16.2	14.0	17.9	13.3	11.3	15.5
1995	28.4	28.4	28.5	31.2	30.9	31.4	17.8	19.7	16.1	15.5	14.0	17.1
1996	31.1	30.2	32.0	34.1	33.6	34.7	17.0	13.9	19.6	16.4	17.1	15.6
1997	31.8	30.7	32.9	35.2	34.1	36.2	16.4	13.7	18.5	17.8	16.1	19.6
1998	31.0	29.6	32.4	34.5	32.9	36.1	17.9	16.1	19.3	16.5	15.9	17.1

NOTE: The Current Population Survey (CPS) questions used to obtain educational attainment were changed in 1992. See the supplemental note to this indicator for further discussion. In 1994, the survey instrument for the CPS was changed and weights were adjusted. See the supplemental note to *Indicator 51* for further discussion. Included in totals but not shown separately are other racial–ethnic groups.

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

Educational attainment

The Current Population Survey (CPS) questions on educational attainment, which are used in the analyses for *Indicators 11, 12, 59*, and others, were changed in 1992. Before 1992, the educational attainment questions were 1) "What is the highest grade or year of regular school . . . has ever attended?" and 2) "Did . . . complete the grade?" There were 19 response categories for grades 1–8, first through fourth year of high school, and first through sixth year of college.

For example, if respondents attended, but did not complete, grade 12, it was assumed that they had completed grade 11. If the highest grade respondents had completed was grade 9, 10, or 11, they were classified as high school dropouts. If respondents had completed grade 12 or more, they were considered to have completed high school. If they had completed 4 or more years of college, they were considered to have completed college.

Beginning in 1992, the two questions were changed to a single question: "What is the highest level of school . . . has completed or the highest degree . . . has received?" In the new response categories, several of the lower education levels were collapsed into a single summary category such as "1st, 2nd, 3rd, or 4th grades." At the high school level, a new category "12th grade, no diploma" was added. Also, the categories for high school completion and beyond were changed as follows:

- High school graduate
- High school diploma or equivalent (e.g., GED)
- Some college but no degree
- Associate degree in college, academic program
- Associate degree in college, occupational or vocational program
- Bachelor's degree (e.g., B.A., A.B., B.S.)
- Master's degree (e.g., M.A., M.S., M.Eng., M.Ed., M.S.W., M.B.A.)
- Professional school degree (e.g., M.D., D.D.S., D.V.M., L.L.B., J.D.)
- Doctoral degree (e.g., Ph.D., Ed.D.)

The new question puts more emphasis on credentials received beginning at the high school level and less emphasis on the last grade level attended or completed in college if that attendance did not lead to a credential.

This change created some uncertainty about the comparability of measures, such as high school completion rates and college completion rates over time. Below is a discussion of the possible effects the new question may have on high school and college completion rates.

High school completion: The earlier educational attainment question did not explicitly address high school equivalency certificates. Therefore, it is possible that an individual who attended grade 10, dropped out without completing that grade, and later took the GED test and received a high school equivalency credential would not have been counted as completing high school. The new question, however, explicitly treats these individuals as high school graduates. Since 1988, an additional question has been added to the October CPS to explicitly ask respondents whether they had taken the GED. The vast majority of those who responded "yes" were classified as high school graduates based upon the educational attainment question.

The earlier educational attainment question treated individuals who completed grade 12 as high school graduates. However, the new question added a new response category called "12th grade, no diploma," and these respondents were not treated as graduates—historically, the number of individuals in this category has been very small. In summary, it appears that the question change has had minor effects on measured high school completion rates.

College completion: With the increasing prevalence of individuals taking more than 4 years to earn a bachelor's degree, some researchers are concerned that the college completion rate based on the category "4th year or higher of college completed" would overstate the bachelor's degree (or higher) completion rate. However, the college completion rates among those ages 25–29 in 1992 and 1993 using the new CPS question were very similar to the completion rates for those in 1990 and 1991 using the old questions. In summary, it appears that the question change has had very little effect on measured college completion rates.

Some college: Based on the new question, an individual who attends college for only a few months would respond "some college," compared with the old question to which the response would have been "attended first year of college and did not complete it." In the past, the calculation of the percentage of the population with 1–3 years of college excluded these individuals. With the new question, the information to exclude them is not available, and those respondents with only a few months of college are included in the "some college" category. In principle, the percentage of individuals with "some college" or an associate degree would be expected to be larger than the percentage with 1–3 years of college. Therefore, it would not be accurate to make comparisons between the percentage of those with "some college or an associate degree" using the new question and the percentage of those who completed "1–3 years of college" using the old question.

Indicators *11* and *12* use labor force statistics for the civilian population and annual median earnings for wage and salary workers with different levels of educational attainment. The discussion above suggests that the "high school graduate with no further education" category based on the new item is larger than before, because it includes all those with an equivalency certificate; however, it is actually smaller because it excludes those who completed "12th grade, no diploma" and those with only a few months of college. The latter group is now included in the "1–3 years of college" category.

Nevertheless, the employment and earnings of the respondents who have been added and dropped from each category are similar; therefore, the net effect of the misclassification on employment rates and average annual earnings is likely to be minor. Thus, it is still useful to compare the employment rates and median annual earnings of recent cohorts with "some college or an associate degree" to older cohorts who completed "1–3 years of college."

For further information on this issue, see Robert Kominski and Paul M. Siegel, "Measuring Education in the Current Population Survey," *Monthly Labor Review*, September 1993.

Table 60-1 Percentage of the population who completed secondary and higher education, by sex, age, and country: 1996

Country	Total		Male		Female	
	Secondary education[1]	Higher education	Secondary education[1]	Higher education	Secondary education[1]	Higher education
			25–64 years old			
Large, industrialized countries						
Canada	76.4	17.3	75.7	18.6	77.1	16.0
France[2]	60.2	9.7	63.3	10.9	57.2	8.6
Germany	81.5	13.1	87.1	16.2	75.7	9.9
Italy	38.2	8.1	39.8	8.9	36.6	7.3
Japan[3]	69.7	13.3	70.9	21.5	68.5	5.2
United Kingdom	76.3	12.8	81.5	15.4	71.1	10.1
United States	85.7	25.8	85.2	27.4	86.1	24.3
Other countries						
Australia	57.0	14.8	66.3	15.4	47.6	14.3
Austria	71.3	6.1	78.7	7.6	63.9	4.6
Belgium	53.5	10.6	54.3	13.4	52.6	7.9
Czech Republic	84.4	10.4	90.8	12.7	78.1	8.2
Denmark	66.1	15.2	69.9	15.8	62.2	14.7
Finland	66.8	11.9	66.2	13.5	67.4	10.2
Greece	44.2	12.0	46.8	13.4	41.7	10.7
Ireland	50.2	10.7	46.9	12.2	53.5	9.3
Korea	61.1	19.0	70.4	24.6	51.5	13.2
Luxembourg	29.3	11.4	33.5	14.7	25.0	8.1
Netherlands	62.5	22.5	67.7	25.6	57.3	19.4
New Zealand[4]	60.2	11.3	65.8	13.4	54.7	9.3
Norway	81.6	15.6	82.5	15.9	80.6	15.2
Poland[5]	73.7	9.9	76.3	10.1	71.2	9.8
Portugal	20.4	7.5	20.4	7.8	20.5	7.1
Spain	30.2	12.8	32.3	13.0	28.2	12.7
Sweden	74.2	13.4	73.0	14.0	75.5	12.7
Switzerland	80.2	9.5	87.7	12.9	72.6	6.1
Turkey[4]	21.6	7.9	24.6	9.2	17.5	6.2
			25–34 years old			
Large, industrialized countries						
Canada	84.9	20.1	82.9	19.4	86.9	20.8
France[2]	74.3	12.4	73.6	11.7	74.9	12.9
Germany	86.4	12.9	88.3	14.1	84.4	11.6
Italy	52.1	8.3	50.0	8.0	54.3	8.7
Japan[3]	90.6	22.9	89.3	34.2	91.8	11.5
United Kingdom	86.6	15.2	87.5	16.5	85.6	13.8
United States	86.9	26.5	85.9	25.9	87.9	27.1

28[illegible]

Table 60-1 Percentage of the population who completed secondary and higher education, by sex, age, and country: 1996—Continued

Country	Total		Male		Female	
	Secondary education[1]	Higher education	Secondary education[1]	Higher education	Secondary education[1]	Higher education
			25–34 years old			
Other countries						
Australia	62.3	15.8	69.7	15.7	55.1	16.0
Austria	82.2	6.9	86.4	7.7	77.9	6.2
Belgium	69.8	14.3	67.4	15.3	72.3	13.3
Czech Republic	92.3	11.2	93.6	12.4	91.0	9.9
Denmark	74.2	15.8	73.9	15.0	74.6	16.6
Finland	83.1	13.1	81.5	13.7	84.7	12.4
Greece	65.9	16.2	65.1	14.5	66.6	17.8
Ireland	66.4	14.4	61.6	14.8	71.1	14.1
Korea	88.4	30.1	90.3	34.0	86.4	25.9
Luxembourg	32.3	11.5	32.8	13.0	31.8	9.9
Netherlands	71.9	25.1	71.6	26.0	72.1	24.2
New Zealand[4]	65.0	13.7	67.6	14.9	62.6	12.5
Norway	91.0	19.4	90.5	17.1	91.6	21.7
Poland[5]	88.2	9.9	87.1	9.1	89.4	10.8
Portugal	32.5	11.2	29.1	9.3	35.7	12.9
Spain	49.8	19.2	47.5	16.0	52.2	22.6
Sweden	87.4	11.3	86.8	11.6	88.1	10.9
Switzerland	86.7	10.7	91.1	12.6	82.2	8.8
Turkey[4]	24.7	7.4	28.9	8.6	20.3	6.1
			35–44 years old			
Large, industrialized countries						
Canada	81.2	17.6	79.7	18.5	82.6	16.8
France[2]	64.1	10.0	67.6	11.1	60.8	8.9
Germany	85.3	16.2	88.9	18.9	81.5	13.4
Italy	46.0	10.7	46.8	11.4	45.2	9.9
Japan[3]	77.0	14.5	77.0	23.6	77.0	5.4
United Kingdom	80.7	14.7	85.4	17.6	75.9	11.8
United States	87.9	26.3	87.0	26.3	88.9	26.2
Other countries						
Australia	59.9	18.3	69.8	18.7	50.2	17.8
Austria	75.1	7.4	82.0	8.7	68.0	6.1
Belgium	57.7	11.4	57.5	14.7	57.9	8.1
Czech Republic	86.9	12.3	91.8	15.0	82.0	9.5
Denmark	69.5	17.5	73.7	17.2	65.2	17.8
Finland	75.6	13.4	73.5	14.8	77.7	11.9
Greece	51.7	14.4	53.2	16.2	50.2	12.7
Ireland	54.4	11.2	51.5	12.9	57.2	9.6
Korea	62.6	17.9	72.7	25.2	52.1	10.2
Luxembourg	33.5	14.0	37.8	17.5	29.0	10.4
Netherlands	66.5	24.9	70.1	27.9	62.7	21.9
New Zealand[4]	64.3	13.1	69.8	15.4	59.0	10.8
Norway	86.6	17.4	86.8	16.8	86.4	18.1
Poland[5]	81.7	9.7	82.1	9.5	81.3	9.9
Portugal	24.3	8.9	24.1	9.4	24.5	8.5
Spain	34.2	14.7	36.3	14.9	32.3	14.6
Sweden	80.1	14.7	77.6	15.5	82.6	14.0
Switzerland	81.5	10.5	86.2	13.9	76.6	6.9
Turkey[4]	22.5	8.4	26.5	9.6	17.2	6.8

Table 60-1 Percentage of the population who completed secondary and higher education, by sex, age, and country: 1996—Continued

Country	Total		Male		Female	
	Secondary education[1]	Higher education	Secondary education[1]	Higher education	Secondary education[1]	Higher education
			45–54 years old			
Large, industrialized countries						
Canada	73.0	17.5	73.2	20.2	72.8	14.7
France[2]	55.9	9.6	60.5	12.0	51.2	7.1
Germany	81.5	14.1	87.4	18.8	75.4	9.3
Italy	31.2	8.4	35.7	9.8	26.8	7.0
Japan[3]	59.6	9.1	62.4	15.8	56.9	2.5
United Kingdom	71.4	11.6	78.6	15.1	64.3	8.1
United States	86.5	28.0	86.7	32.2	86.2	24.0
Other countries						
Australia	53.7	13.8	64.1	15.3	43.0	12.2
Austria	67.1	5.4	75.2	7.5	58.9	3.2
Belgium	47.4	9.6	50.2	13.4	44.5	5.8
Czech Republic	83.6	9.9	91.0	11.7	76.4	8.0
Denmark	65.4	15.6	69.9	17.3	60.8	13.8
Finland	60.3	12.2	59.4	14.3	61.2	10.0
Greece	35.6	10.8	40.2	13.4	31.1	8.3
Ireland	38.3	8.7	35.7	10.6	41.1	6.6
Korea	40.9	11.1	54.9	16.4	26.4	5.7
Luxembourg	27.8	12.4	34.3	17.2	21.2	7.4
Netherlands	57.0	21.5	65.5	26.3	48.2	16.4
New Zealand[4]	56.3	9.6	62.9	12.7	49.5	6.5
Norway	77.6	13.8	78.6	16.2	76.4	11.3
Poland[5]	67.9	11.7	71.7	12.4	64.2	11.1
Portugal	15.5	6.1	16.8	7.2	14.3	5.1
Spain	20.1	9.9	24.5	12.0	15.9	7.8
Sweden	70.3	16.4	68.8	16.9	71.7	15.9
Switzerland	77.7	9.5	87.7	14.5	68.1	4.7
Turkey[4]	13.5	6.9	18.8	9.8	8.0	3.8
			55–64 years old			
Large, industrialized countries						
Canada	56.2	11.2	57.9	14.7	54.5	7.7
France[2]	38.3	5.5	44.1	7.5	32.8	3.6
Germany	71.1	8.9	83.1	13.3	59.4	4.6
Italy	16.8	4.6	20.4	6.3	13.4	2.9
Japan[3]	—	—	—	—	—	—
United Kingdom	60.4	7.7	69.8	10.8	51.6	4.9
United States	77.5	20.2	77.6	25.2	77.3	15.6

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Table 60-1 Percentage of the population who completed secondary and higher education, by sex, age, and country: 1996—Continued

Country	Total		Male		Female	
	Secondary education[1]	Higher education	Secondary education[1]	Higher education	Secondary education[1]	Higher education
Other countries						
Australia	46.4	8.3	57.1	9.0	35.7	7.5
Austria	52.8	3.8	64.4	6.0	41.8	1.6
Belgium	31.2	5.5	35.3	8.7	27.4	2.6
Czech Republic	70.6	7.5	84.3	11.0	58.5	4.4
Denmark	50.3	10.9	58.4	12.8	42.5	9.2
Finland	40.2	7.4	42.5	9.8	38.1	5.2
Greece	21.8	6.2	27.2	9.1	16.9	3.5
Ireland	30.4	6.0	28.7	8.4	32.2	3.7
Korea	24.6	6.9	40.6	12.3	10.2	1.9
Luxembourg	19.6	6.3	26.9	10.0	12.6	2.8
Netherlands	47.5	15.6	59.5	20.0	35.6	11.3
New Zealand[4]	48.7	6.1	59.2	8.0	38.2	4.1
Norway	62.4	8.3	66.8	11.5	58.3	5.2
Poland[5]	47.1	8.2	55.3	10.0	40.2	6.7
Portugal	9.1	3.5	10.6	5.2	7.7	2.1
Spain	11.1	5.5	15.1	7.6	7.5	3.6
Sweden	52.9	10.1	52.0	11.3	53.7	9.0
Switzerland	71.0	6.2	84.6	9.7	58.2	3.0
Turkey[4]	6.6	2.9	9.8	4.8	3.4	1.0

— Not available.

[1] Includes individuals who have completed at least secondary education.

[2] The allocation for individual education level for France was revised in 1996. The result is a reduction in the number of people with upper secondary level qualification and an increase in the number with lower secondary level qualification.

[3] Data are for 1989.

[4] Data are for 1997.

[5] Data are for 1995.

NOTE: In the United States, completing secondary education is defined as graduating from high school or earning a GED; completing higher education is defined as earning a bachelor's degree or higher.

SOURCE: Organisation for Economic Co-operation and Development, INES Project, International Indicators Project.

Standard Error Tables

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General information about standard errors

The information presented in this report was obtained from many sources, including federal and state agencies, private research organizations, and professional associations. The data were collected using many research methods, including surveys of a universe (such as all school districts) or of a sample, compilations of administrative records, and statistical projections. Users of *The Condition of Education* should take particular care when comparing data from different sources. Differences in procedures, timing, phrasing of questions, interviewer training, and so forth mean that the results are not strictly comparable. Following the general discussion of data accuracy below, descriptions of the information sources and data collection methods are presented, grouped by sponsoring organization. More extensive documentation of procedures used in one survey as compared to another does not imply more problems with the data, only that more information is available.

Unless otherwise noted, all statements cited in the text were tested for statistical significance and are statistically significant at the 0.05 level. Several test procedures were used. The procedure used depended upon the type of data interpreted and the nature of the statement tested. The most commonly used test procedures were 1) *t*-tests, 2) multiple *t*-tests with a Bonferroni adjustment to the significance level, 3) linear trend tests, and 4) sign tests. When a simple comparison between two sample estimates was made, for example, between the first and last years in a time series or between males and females, a *t*-test was used. When multiple comparisons between more than two groups were made, and even if only one comparison is cited in the text, a Bonferroni adjustment to the significance level was made to ensure that the significance level for the tests as a group was at the 0.05 level. The Bonferroni adjustment is commonly used when making comparisons between racial/ethnic groups and between the United States and other countries. A linear trend test was used when a statement describing a trend, such as the growth of enrollment rates over time, was made or when a statement describing a relationship, such as the relationship between a parent's educational attainment and a student's reading proficiency, was made. A sign test was used when a statement describing a consistent pattern of differences over the years was made.

The accuracy of any statistic is determined by the joint effects of "sampling" and "nonsampling" errors. Estimates based on a sample will differ somewhat from the figures that would have been obtained if a complete census had been taken using the same survey instruments, instructions, and procedures. In addition to such sampling errors, all surveys, both universe and sample, are subject to design, reporting, and processing errors due to nonresponse. To the extent possible, these nonsampling errors are kept to a minimum by methods built into the survey procedures; however, the effects of nonsampling errors are more difficult to gauge than those produced by sampling variability.

The estimated standard error of a statistic is a measure of the variation due to sampling and can be used to examine the precision obtained in a particular sample. The sample estimate and an estimate of its standard error permit the construction of interval estimates with prescribed confidence that the interval includes the average result of all possible samples. If all possible samples were selected, and each was surveyed under the same conditions, and an estimate and its standard error were calculated from each sample, then approximately 90 percent of the intervals from 1.6 standard errors below the estimate to 1.6 standard errors above the estimate would include the actual value; 95 percent of the intervals from two standard errors below the estimate to two standard errors above the estimate would include the actual value; and 99 percent of all intervals from 2.5 standard errors below the estimate to 2.5 standard errors above the estimate would include the actual value. These intervals are called 90 percent, 95 percent, and 99 percent confidence intervals, respectively.

To illustrate this further, consider the text table for *Indicator 1* and the standard error table S1 for estimates from the National Household Education Survey (NHES). For the 1996 estimate of the percentage of 3-year-olds enrolled in center-based programs and kindergarten (36.7 percent), table S1 shows a standard error of 1.3. Therefore, we can construct a 95 percent confidence interval from 34.1 to 39.3 (36.7 ± 2 x 1.3). If this procedure was followed for every possible sample, about 95 percent of the intervals would include the actual percentage of 3-year-olds enrolled in center-based programs and kindergarten.

The estimated standard errors for two sample statistics can be used to estimate the precision of the difference between the two statistics and to avoid concluding that there is an actual difference when the difference in sample estimates may only be due to sampling error. The need to be aware of the precision of differences arises, for example, when comparing mean proficiency scores between groups or years in the National Assessment of Educational Progress (NAEP) or when comparing percentages between groups or years in the Current Population Survey (CPS). The standard error (se) of the difference between sample estimate A and sample estimate B (when A and B do not overlap) is

$$se_{A-B} = \sqrt{se_A^2 + se_B^2}$$

When a ratio (called a *t*-statistic) of the difference between the two sample statistics and the standard error of the difference as calculated above is less than 2, one cannot be sure that the difference is not due only to sampling error, and caution should be taken in drawing any conclusions about the difference. In this report, for example, using the rationale above, we would not conclude that there is a difference between the two sample statistics. Some analysts, however, use the less restrictive criterion of a *t*-statistic value of 1.64, which corresponds to a 10 percent significance level.

To illustrate this further, consider the data on event dropout rates of those ages 15–24 in grades 10–12 in the text table of *Indicator 6* and the associated standard error table S6. The estimated event dropout rate for these people was 6.1 percent in 1972. For the (new) sample in 1996, the estimated event dropout rate was 5.0 percent. Is there enough evidence to conclude that the actual event dropout rate for all people in grades 10–12 ages 15–24 decreased by 1.1 percentage points between 1972 and 1996? The standard errors for these two estimates are 0.2 and 0.4, respectively. Using the above formula, the standard error of the difference is calculated as 0.45. The ratio of the estimated difference of 1.1 percentage points to the standard error of the difference of 0.45 is 2.46. Using the table below, we see that there is less than a 5 percent chance that the 1.1 percentage point difference is due only to sampling error, and one may conclude that the event dropout rate of those ages 15–24 in grades 10–12 decreased between 1972 and 1996.

Percent chance that a difference is due only to sampling error:

t-statistic	1.00	1.64	1.96
Percent chance	32	10	5

It should be noted that most of the standard errors presented in this report and in the original documents are approximations. That is, to derive estimates of standard errors that would applicable to a wide variety of items and that could be prepared at a moderate cost, a number of approximations were required. As a result, most of the standard errors presented provide a general order of magnitude rather than the exact standard error for any specific item.

The preceding discussion on sampling variability was directed toward a situation concerning one or two estimates. Determining the accuracy of statistical projections is more difficult. In general, the further away the projection date is from the date of the actual data being used for the projection, the greater the possible error in the projection. If, for instance, annual data from 1980 to 1995 are used to project enrollment in elementary and secondary education, the further beyond one projects, the more variability in the projection. The enrollment projection for the year 2002 will be less certain than the projection for 1997. A detailed discussion of the projections methodology is contained in *Projections of Education Statistics to 2007* (National Center for Education Statistics 1997).

Both universe and sample surveys are subject to nonsampling errors. Nonsampling errors can arise in various ways, including 1) from respondents or interviewers interpreting questions differently; 2) from respondents estimating the values that they provide; 3) from partial to total nonresponse; 4) from imputation or reweighting to adjust for nonresponse; 5) from inability or unwillingness on the part of respondents to provide correct information; 6) from recording or keying errors; or 7) from overcoverage or undercoverage of the target universe.

Sampling and nonsampling error combine to yield total survey error. Since estimating the magnitude of nonsampling errors would require special experiments or access to independent data, their magnitudes are seldom available. In almost all situations, the sampling error represents an underestimate of the total survey error, and thus an overestimate of the precision of the survey estimates.

To compensate for suspected nonrandom errors, adjustments of the sample estimates are often made. For example, adjustments are frequently made for nonresponse, both partial and total. An adjustment made for either type of nonresponse is often referred to as an imputation—substitution of the "average" questionnaire response for the nonresponse. Imputations are usually made separately within various groups of sample members, which have similar survey characteristics. Imputation for item nonresponse is usually made by substituting for a missing item the response to that item of a respondent having characteristics that are similar to those of the nonrespondent. In editions prior to the 1992 edition of *The Condition of Education*, when reporting race-specific data from the

CPS, Hispanics were usually included among whites and blacks (i.e., "Hispanics may be of any race"). Beginning with the 1992 edition of the report, racial/ethnic data from the CPS excludes Hispanics from whites and blacks (e.g., whites are non-Hispanic whites and blacks are non-Hispanic blacks).

Unless otherwise noted, all dollar values in this volume are expressed in 1997 constant dollars. The Consumer Price Index (CPI) is used to convert current dollars for earlier years to 1997 dollars. The CPI for calendar year 1997 is 160.6. See table 38 in *Digest of Education Statistics, 1997* (National Center for Education Statistics 1997) for CPI adjustments.

Table S1(a) Standard errors for the first text table in *Indicator 1*

Year	Total			Male			Female		
	Age 9	Age 13	Age 17	Age 9	Age 13	Age 17	Age 9	Age 13	Age 17
1970	1.2	1.1	1.0	1.3	1.3	1.2	1.2	1.2	1.1
1973	1.2	1.1	1.0	1.3	1.3	1.2	1.2	1.2	1.1
1977	1.2	1.1	1.0	1.3	1.3	1.2	1.2	1.2	1.1
1982	1.8	1.3	1.2	2.3	1.5	1.4	2.0	1.3	1.3
1986	1.2	1.4	1.4	1.4	1.6	1.9	1.4	1.5	1.5
1990	0.8	0.9	1.1	1.1	1.1	1.3	1.0	1.1	1.6
1992	1.0	0.8	1.3	1.2	1.2	1.7	1.0	1.0	1.5
1994	1.2	1.0	1.6	1.3	1.2	2.0	1.4	1.2	1.7
1996	1.2	1.0	1.2	1.7	1.0	1.6	1.5	1.3	1.4

Table S1(b) Standard errors for the second text table in *Indicator 1*

Year	White			Black			Hispanic		
	Age 9	Age 13	Age 17	Age 9	Age 13	Age 17	Age 9	Age 13	Age 17
1970	0.9	0.8	0.8	1.9	2.4	1.5	—	—	—
1973	0.9	0.8	0.8	1.9	2.4	1.5	—	—	—
1977	0.9	0.8	0.7	1.8	2.4	1.5	2.7	1.9	2.2
1982	1.9	1.1	1.0	3.0	1.3	1.7	4.2	3.9	2.3
1986	1.2	1.4	1.7	1.9	2.5	2.9	3.1	3.1	3.8
1990	0.8	0.9	1.1	2.0	3.1	4.5	2.2	2.6	4.4
1992	1.0	1.0	1.3	2.7	2.7	3.2	2.8	2.6	5.6
1994	1.3	1.0	1.5	1.7	4.2	3.1	2.7	2.4	6.7
1996	1.4	1.1	1.2	3.0	2.1	2.4	2.8	2.5	3.3

— Not available.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *NAEP 1996 Trends in Academic Progress*, revised 1998.

Table S2 Standard errors for the text table in *Indicator 2*

Selected student characteristics	Grade 4			Grade 8			Grade 12		
	1990	1992	1996	1990	1992	1996	1990	1992	1996
Total	**0.9**	**0.7**	**0.9**	**1.3**	**0.9**	**1.1**	**1.1**	**0.9**	**1.0**
Sex									
Male	1.2	0.8	1.1	1.6	1.1	1.4	1.4	1.1	1.1
Female	1.1	1.0	1.0	1.3	1.0	1.1	1.3	1.0	1.1
Race–ethnicity									
White	1.1	0.9	0.9	1.4	1.0	1.2	1.2	0.9	1.0
Black	1.8	1.3	2.3	2.7	1.3	2.0	1.9	1.7	2.2
Hispanic	2.0	1.4	2.1	2.8	1.2	2.0	2.8	1.7	1.8
Asian/Pacific Islander	3.5	2.3	4.1	4.8	5.4	3.9	5.2	3.5	4.8
American Indian/ Alaskan Native	3.9	3.1	2.3	9.4	2.8	3.0	—	—	8.9
Parents' highest education level									
Less than high school	3.7	2.5	2.5	2.0	1.7	1.8	2.1	1.7	1.8
Graduated high school	1.5	1.5	1.6	1.6	1.2	1.2	2.0	1.4	1.3
Some education after high school	2.5	1.5	1.5	1.6	1.1	1.4	1.2	1.0	0.8
Graduated college	1.5	1.0	1.3	1.5	1.2	1.5	1.6	1.2	1.3
Type of school									
Public	1.1	0.8	1.0	1.4	1.0	1.2	1.2	1.0	0.9
Nonpublic	2.6	1.1	1.9	2.5	2.2	2.4	3.6	2.3	2.2

— Not available.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *NAEP 1996 Mathematics Report Card for the Nation and the States: Findings from the National Assessment of Educational Progress*, 1997.

Table S2-1 Standard errors for table 2-2

	Grade 4			Grade 8			Grade 12		
Achievement level	1990	1992	1996	1990	1992	1996	1990	1992	1996
At or above basic	1.4	1.0	1.2	1.4	1.1	1.1	1.6	1.1	1.3
Below basic	1.4	1.0	1.2	1.4	1.1	1.1	1.6	1.1	1.3

SOURCE: U.S. Department of Education, National Center for Education Statistics, *NAEP 1996 Mathematics Report Card for the Nation and the States: Findings from the National Assessment of Educational Progress*, 1997.

Table S2-2 Standard errors for table 2-3

Jurisdiction	Grade 4 Average 1996 performance score	Grade 4 Change from 1992 average score	Grade 8 Average 1996 performance score	Grade 8 Change from 1992 average score	Grade 8 Change from 1990 average score
National average	**1.0**	**1.3**	**1.2**	**1.6**	**1.8**
Alabama	1.2	2.0	2.1	2.7	2.4
Alaska	1.3	—	1.8	—	—
Arizona	1.7	2.0	1.6	2.0	2.1
Arkansas	1.5	1.7	1.5	1.9	1.8
California	1.8	2.4	1.9	2.5	2.3
Colorado	1.0	1.4	1.1	1.5	1.4
Connecticut	1.1	1.6	1.1	1.6	1.5
Delaware	0.6	1.0	0.9	1.4	1.3
District of Columbia	1.1	1.2	1.3	1.6	1.6
Florida	1.2	1.9	1.8	2.3	2.2
Georgia	1.5	1.9	1.6	2.0	2.1
Hawaii	1.5	2.0	1.0	1.3	1.3
Indiana	1.0	1.5	1.4	1.8	1.8
Iowa	1.1	1.5	1.3	1.7	1.7
Kentucky	1.1	1.5	1.1	1.5	1.6
Louisiana	1.1	1.8	1.6	2.3	2.0
Maine	1.0	1.4	1.3	1.6	—
Maryland	1.6	2.0	2.1	2.5	2.6
Massachusetts	1.4	1.8	1.7	2.0	—
Michigan	1.3	2.1	1.8	2.3	2.2
Minnesota	1.1	1.4	1.3	1.7	1.6
Mississippi	1.2	1.6	1.2	1.7	—
Missouri	1.1	1.6	1.4	1.8	—
Montana	1.2	—	1.3	—	1.6
Nebraska	1.2	1.7	1.0	1.5	1.5
Nevada	1.3	—	—	—	1.4
New Jersey	1.5	2.1	—	—	2.2
New Mexico	1.8	2.3	1.2	1.5	1.5
New York	1.2	1.8	1.7	2.7	2.7
North Carolina	1.2	1.6	1.4	1.8	1.8
North Dakota	1.2	1.4	0.9	1.5	1.5
Oregon	1.4	—	1.5	—	1.8
Pennsylvania	1.2	1.8	—	—	—
Rhode Island	1.4	2.1	0.9	1.2	1.1
South Carolina	1.3	1.7	1.5	1.8	—
Tennessee	1.4	1.9	1.4	2.0	—
Texas	1.4	1.8	1.4	1.9	2.0
Utah	1.2	1.5	1.0	1.3	—
Vermont	1.2	—	1.0	—	
Virginia	1.4	1.9	1.6	1.9	2.2
Washington	1.2	—	1.3	—	—
West Virginia	1.0	1.5	1.0	1.4	1.4
Wisconsin	1.0	1.4	1.5	2.1	2.0
Wyoming	1.4	1.7	0.9	1.2	1.1

— Not available

SOURCE: U.S. Department of Education, National Center for Education Statistics, *NAEP 1996 Mathematics Report Card for the Nation and the States: Findings from the National Assessment of Educational Progress*, 1997.

Table S3 Standard errors for the text table in *Indicator 3*

Country	Mathematics			Science		
	Overall	Male	Female	Overall	Male	Female
International average	**1.2**	**1.5**	**1.6**	**1.2**	**1.6**	**1.4**
Netherlands	4.7	5.6	5.9	5.3	5.7	6.2
Sweden	4.3	5.9	3.9	4.4	5.9	3.5
Denmark	3.3	4.0	4.0	3.6	5.4	4.1
Switzerland	5.8	6.4	7.4	5.3	6.1	7.8
Iceland	2.0	3.4	2.2	1.5	2.7	2.1
Norway	4.1	5.3	4.8	4.1	5.1	4.5
France	5.1	5.6	5.3	5.1	6.7	4.8
Australia	9.3	10.3	9.3	9.8	11.5	9.4
New Zealand	4.5	4.9	6.2	5.2	7.1	5.2
Canada	2.8	3.8	3.5	2.6	3.6	3.8
Austria	5.3	7.2	5.5	5.6	8.7	5.8
Slovenia	8.3	12.7	8.0	8.2	12.7	6.4
Germany	5.9	8.8	8.8	5.1	7.9	8.5
Hungary	3.2	4.9	4.8	3.0	4.2	4.3
Italy	5.5	7.4	6.0	5.3	6.7	5.6
Russian Federation	6.2	6.5	6.6	5.7	5.7	6.7
Lithuania	6.1	7.3	7.7	5.7	6.4	7.3
Czech Republic	12.3	11.3	16.8	8.8	8.8	11.0
United States	3.2	4.1	3.6	3.3	4.6	3.9
Cyprus	2.5	4.9	3.7	3.0	5.8	3.0
South Africa	8.3	9.3	10.8	10.5	11.5	13.0

SOURCE: U.S. Department of Education, National Center for Education Statistics. *Pursuing Excellence: A Study of U.S. Twelfth-Grade Mathematics and Science Achievement in International Context*, 1998.

Table S3-1 Standard errors for table 3-1

Country	Mathematics			Science		
	Overall	Male	Female	Overall	Male	Female
International average*	**0.7**	**0.8**	**0.8**	**0.7**	**0.9**	**0.8**
Singapore	5.3	5.5	6.4	5.0	5.4	6.3
Korea	2.1	2.5	2.6	1.9	2.2	2.5
Japan	2.1	2.5	2.2	1.8	2.0	2.0
Hong Kong	4.3	4.7	4.2	3.7	4.1	3.8
Netherlands	3.4	3.8	3.4	3.1	3.6	3.5
Czech Republic	3.3	3.4	3.6	3.1	3.4	3.6
Austria	3.1	3.6	3.6	3.3	3.9	3.7
Slovenia	3.2	3.4	4.0	3.3	3.3	4.0
Ireland	3.4	3.9	4.3	3.3	3.5	4.5
Hungary	3.7	4.2	3.9	3.4	3.8	3.9
Australia*	3.2	3.9	3.6	3.0	3.4	3.3
United States	3.0	3.1	3.3	3.1	3.3	3.3
Canada	3.3	3.4	3.9	3.0	3.7	3.2
Israel	3.5	4.4	4.1	3.6	4.5	3.8
Latvia (Latvian-speaking schools)	4.8	5.5	5.2	4.9	5.4	5.5
Scotland	3.9	4.3	3.8	4.2	4.5	4.3
England	3.2	3.4	4.4	3.3	4.0	3.4
Norway	3.0	3.5	3.6	3.6	4.7	3.7
Cyprus	3.1	3.5	3.3	3.3	4.0	3.1
New Zealand	4.3	5.7	4.3	4.9	6.1	4.8
Greece	4.4	5.0	4.5	4.1	4.5	4.3
Thailand	4.7	5.8	4.2	4.9	5.9	4.3
Portugal	3.5	3.8	3.7	4.0	4.5	4.2
Iceland	2.7	3.3	3.0	3.3	4.3	3.3
Iran, Islamic Republic	4.0	6.0	5.0	3.9	5.9	4.7
Kuwait	2.8	—	—	3.1	—	—

— Not available.

* The standard errors for the International Average and Australia (grade 4) differ slightly from those published in *Mathematics Achievement in the Primary School Years*, 1997, and in *Science Achievement in the Primary School Years*, 1997.

SOURCE: International Association for the Evaluation of Educational Achievement, TIMSS International Study Center, *Mathematics Achievement in the Primary School Years, IEA's Third International Mathematics and Science Study*, 1997 and *Science Achievement in the Primary School Years, IEA's International Mathematics and Science Study*, 1997.

Table S3-2 Standard errors for table 3-2

Country	Mathematics			Science		
	Overall	Male	Female	Overall	Male	Female
International average	**0.6**	**0.8**	**0.7**	**0.6**	**0.8**	**0.7**
Singapore	4.9	6.3	5.4	5.5	6.7	7
Korea	2.4	3.2	3.4	1.9	2.7	2.3
Japan	1.9	2.6	2.1	1.6	2.4	2.0
Hong Kong	6.5	7.7	7.7	4.7	5.5	5.1
Belgium (Flemish)	5.7	8.8	7.4	4.2	6.0	5.8
Czech Republic	4.9	4.5	6.3	4.3	4.2	5.8
Slovak Republic	3.3	3.7	3.6	3.2	3.5	3.9
Switzerland	2.8	3.5	3.1	2.5	3.2	3.0
Netherlands	6.7	7.8	6.4	5.0	6.4	4.9
Slovenia	3.1	3.8	3.3	2.5	3.2	3.2
Bulgaria	6.3	—	—	5.3	—	—
Austria	3.0	3.2	4.5	3.7	4.0	4.6
France	2.9	3.1	3.8	2.5	2.7	3.3
Hungary	3.2	3.6	3.6	2.8	3.1	3.4
Russian Federation	5.3	6.3	5.0	4.0	4.9	3.7
Australia	4.0	5.1	4.6	3.9	5.2	4.1
Canada	2.4	3.2	2.7	2.6	3.1	3.7
Ireland	5.1	7.2	6.0	4.5	6.6	5.2
Belgium (French)	3.4	4.7	3.7	2.8	4.8	2.9
Israel	6.2	6.6	6.9	5.7	6.4	6.1
Thailand	5.7	5.6	7.0	3.7	3.9	4.3
Sweden	3.0	3.6	3.1	3.0	3.4	3.4
Germany	4.5	5.1	5.0	4.8	5.9	4.9
New Zealand	4.5	5.9	5.3	4.4	5.4	5.2
England	2.6	5.1	3.5	3.3	5.6	4.2
Norway	2.2	2.8	2.7	1.9	3.2	2.0
Denmark	2.8	3.2	3.4	3.1	3.6	3.9
United States	4.6	5.2	4.5	4.7	4.9	5.2
Scotland	5.5	6.6	5.2	5.1	6.4	4.7
Latvia (Latvian-speaking schools)	3.1	3.8	3.5	2.7	3.3	3.2
Iceland	4.5	5.5	5.6	4.0	5.1	4.6
Spain	2.0	2.5	2.6	1.7	2.1	2.3
Greece	3.1	3.7	3.1	2.2	2.6	3.1
Romania	4.0	4.8	4.0	4.7	5.3	5.0
Lithuania	3.5	4.0	4.1	3.4	3.8	4.0
Cyprus	1.9	2.8	2.5	1.9	2.2	2.7
Portugal	2.5	2.8	2.7	2.3	2.8	2.7
Iran, Islamic Republic	2.2	2.9	3.3	2.4	3.8	3.2
Kuwait	2.5	—	—	3.7	—	—
Colombia	3.4	6.9	3.6	4.1	7.3	4.6
South Africa	4.4	6.3	4.1	6.6	9.5	6.0

— Not available

SOURCE: International Association for the Evaluation of Educational Achievement, TIMSS International Study Center, *Mathematics Achievement in the Middle School Years, IEA's Third International Mathematics and Science Study*, 1996 and *Science Achievement in the Middle School Years, IEA's Third International Mathematics and Science Study*, 1996.

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Table S4(a) Standard errors for the first text table in *Indicator 4*

	Total			Male			Female		
Year	Age 9	Age 13	Age 17	Age 9	Age 13	Age 17	Age 9	Age 13	Age 17
1971	1.0	0.9	1.2	1.1	1.0	1.2	1.0	0.9	1.3
1975	0.7	0.8	0.8	0.8	0.8	1.0	0.8	0.9	1.0
1980	1.0	0.9	1.2	1.1	1.1	1.3	1.1	0.9	1.2
1984	0.7	0.5	0.6	1.0	0.7	0.8	0.9	0.7	0.9
1988	1.1	1.0	1.0	1.4	1.3	1.5	1.3	1.0	1.5
1990	1.2	0.8	1.1	1.7	1.1	1.6	1.2	1.1	1.2
1992	0.9	1.2	1.1	1.3	1.7	1.6	0.9	1.2	1.1
1994	1.2	0.9	1.3	1.3	1.2	2.2	1.4	1.2	1.5
1996	1.0	0.9	1.1	1.5	1.2	1.3	1.2	1.2	1.2

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *NAEP 1996 Trends in Academic Progress*, revised 1998.

Table S4(b) Standard errors for the second text table in *Indicator 4*

	White			Black			Hispanic		
Year	Age 9	Age 13	Age 17	Age 9	Age 13	Age 17	Age 9	Age 13	Age 17
1971	0.9	0.7	1.0	1.7	1.2	1.7	—	—	—
1975	0.7	0.7	0.6	1.2	1.2	2.0	2.2	3.0	3.6
1980	0.8	0.7	0.9	1.8	1.5	1.8	2.3	2.0	2.7
1984	0.9	0.6	0.9	1.4	1.0	1.0	3.1	1.7	2.9
1988	1.4	1.1	1.2	2.4	2.4	2.4	3.5	3.5	4.3
1990	1.3	0.9	1.2	2.9	2.2	2.3	2.3	2.3	3.6
1992	1.0	1.2	1.4	2.2	2.3	2.1	3.1	3.5	3.7
1994	1.3	1.1	1.5	2.3	2.4	3.9	3.9	1.9	4.9
1996	1.2	1.0	1.2	2.7	2.6	2.7	3.5	2.9	4.1

— Not available.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *NAEP 1996 Trends in Academic Progress*, revised 1998.

Table S5 Standard errors for the text table in *Indicator 5*

Selected student characteristics	Grade 4			Grade 8			Grade 12		
	1992	1994	1998	1992	1994	1998	1992	1994	1998
Total	**0.9**	**1.0**	**0.8**	**0.9**	**0.8**	**0.8**	**0.6**	**0.7**	**0.7**
Sex									
Male	1.2	1.3	1.1	1.1	1.0	0.9	0.7	0.8	1.0
Female	1.0	1.1	0.7	1.0	1.0	0.9	0.7	0.8	0.7
Race–ethnicity									
White	1.2	1.3	0.8	1.2	1.0	0.9	0.6	0.6	0.7
Black	1.6	1.7	1.7	1.6	1.7	1.5	1.4	1.6	1.7
Hispanic	2.1	2.6	1.8	1.4	1.4	2.1	2.3	1.5	1.5
Asian/Pacific Islander	2.1	2.6	1.8	3.0	3.5	3.7	3.2	1.9	3.3
American Indian/ Alaskan Native	4.6	3.4	3.1	3.7	4.2	4.7	—	5.3	5.4
Type of school									
Public	1.0	1.1	0.8	1.0	0.8	0.8	0.7	0.7	0.8
Nonpublic	1.7	2.5	2.3	2.0	1.4	1.6	1.3	1.9	1.7
Type of location									
Central city	1.3	2.1	1.7	1.6	1.6	1.6	1.5	1.1	1.6
Urban fringe/ large town	1.9	1.8	1.6	1.3	1.2	1.3	0.9	1.1	1.2
Rural/small town	1.9	1.8	1.3	2.4	1.7	1.5	1.4	1.4	1.3

— Not available.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *NAEP 1998 Reading, A Report Card for the Nation and the States*, 1999.

Table S5-1 Standard errors for table 5-2

Reading achievement level	Grade 4			Grade 8			Grade 12		
	1992	1994	1998	1992	1994	1998	1992	1994	1998
At advanced	0.6	0.7	0.5	0.3	0.3	0.4	0.3	0.5	0.4
At proficient	1.2	1.1	0.9	1.1	0.9	0.9	0.8	1.0	0.9
At basic	1.1	1.0	0.9	1.0	0.9	0.9	0.6	0.7	0.9
Below basic	1.1	1.0	0.9	1.0	0.9	0.9	0.6	0.7	0.9

SOURCE: U.S. Department of Education, National Center for Education Statistics, *NAEP 1998 Reading, A Report Card for the Nation and the States*, 1999.

Table S6(a) Standard errors for the first text table in *Indicator 6*

Year	Total			Male			Female		
	Grade 4	Grade 8	Grade 11	Grade 4	Grade 8	Grade 11	Grade 4	Grade 8	Grade 11
1984	1.5	2.0	1.6	2.8	2.3	1.4	3.1	2.4	2.5
1988	1.6	1.3	1.3	2.3	1.5	2.0	2.0	1.7	1.2
1990	1.5	1.2	1.0	1.9	1.5	1.6	2.2	1.3	1.5
1992	1.5	1.3	1.4	1.7	1.9	1.2	1.7	1.3	2.0
1994	1.6	1.3	1.2	1.7	1.8	1.5	2.2	1.4	1.5
1996	1.2	1.0	1.2	1.8	1.1	1.4	1.9	1.2	1.4

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *NAEP 1996 Trends in Academic Progress*, revised 1998.

Table S6(b) Standard errors for the second text table in *Indicator 6*

Year	White			Black			Hispanic		
	Grade 4	Grade 8	Grade 11	Grade 4	Grade 8	Grade 11	Grade 4	Grade 8	Grade 11
1984	1.9	2.1	1.8	5.0	5.7	3.6	5.8	6.4	6.6
1988	1.9	1.3	1.3	4.7	3.5	2.9	3.5	2.5	4.4
1990	2.0	1.6	1.2	5.4	2.3	2.3	4.1	2.8	2.6
1992	1.7	1.3	1.2	3.8	4.0	3.2	3.6	2.2	3.8
1994	1.5	1.4	1.4	3.2	3.4	2.2	3.1	3.3	4.0
1996	1.6	1.0	1.5	2.3	2.6	3.0	3.2	2.3	2.5

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *NAEP 1996 Trends in Academic Progress*, revised 1998.

Table S6-1 Standard errors for table 6-2

Proficiency levels	Grade	Year					
		1984	1988	1990	1992	1994	1996
Level 150:							
Disjointed, unclear	4	1.3	0.8	1.1	0.5	0.9	0.7
writing	8	—	—	0.1	—	—	0.1
	11	—	—	—	—	—	—
Level 200:							
Incomplete, vague	4	2.0	2.0	1.7	1.9	2.0	1.5
writing	8	0.9	0.6	0.6	0.4	0.6	0.5
	11	0.3	—	0.3	0.2	0.2	0.2
Level 250:							
Beginning, focused,	4	1.0	1.1	0.9	1.1	0.8	1.2
clear writing	8	2.6	1.7	1.5	1.4	1.3	1.3
	11	1.0	1.5	1.3	1.3	1.2	1.4
Level 300:							
Complete, sufficient	4	—	0.2	0.1	0.2	0.2	0.2
writing	8	1.8	0.8	0.8	1.5	1.2	0.8
	11	2.4	1.7	1.1	1.9	1.5	1.5
Level 350:							
Effective, coherent	4	—	—	—	—	—	—
writing	8	—	0.1	0.2	0.3	0.2	0.2
	11	0.7	0.4	0.7	0.4	0.3	0.5

— Not available.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *NAEP 1996 Trends in Academic Progress*, revised 1998.

Table S6-2 Standard errors for table 6-3

	Grade 4						Grade 8						Grade 11					
Percentile	1984	1988	1990	1992	1994	1996	1984	1988	1990	1992	1994	1996	1984	1988	1990	1992	1994	1996
							All students											
5	3.3	3.3	1.8	1.9	2.6	1.8	4.3	2.9	2.3	2.0	3.4	2.1	2.3	4.5	2.7	3.3	2.0	1.6
10	2.7	1.9	2.3	1.3	3.3	1.8	3.7	2.6	1.9	2.9	2.5	1.3	1.7	2.4	2.4	2.1	2.1	2.0
25	2.1	1.6	2.1	1.4	2.3	1.6	3.1	1.9	1.4	1.5	2.0	1.3	1.7	1.9	1.8	1.7	1.7	1.4
50	2.9	2.5	1.7	2.2	1.3	1.3	2.6	1.4	1.6	1.6	1.3	1.3	1.9	1.3	1.3	1.2	1.7	1.8
75	1.5	1.8	2.3	1.6	1.4	2.3	2.1	1.2	1.7	1.7	1.5	0.9	1.7	1.2	1.4	1.7	1.5	1.2
90	2.2	2.1	2.1	1.8	1.3	2.0	1.8	1.4	1.3	1.7	1.8	1.7	2.6	1.4	1.8	1.5	1.4	1.8
95	2.7	2.6	2.7	2.9	2.7	3.1	2.0	1.8	1.8	1.6	1.5	1.6	2.9	1.6	2.7	2.3	1.3	3.0
							White											
5	3.6	4.3	3.0	2.3	4.7	3.1	5.7	2.3	2.3	3.4	3.1	1.9	3.8	3.7	3.4	1.2	2.5	3.0
10	3.3	3.1	3.5	1.7	2.9	1.8	3.2	1.4	2.9	2.6	2.1	3.0	2.2	2.8	2.7	2.0	1.3	2.7
25	1.5	1.8	2.9	1.9	2.2	2.2	2.3	1.8	1.9	1.7	1.7	1.5	1.4	1.7	1.6	1.1	1.5	1.5
50	2.2	1.8	1.9	2.3	1.0	2.1	2.7	1.5	1.6	1.7	2.0	1.1	2.0	1.2	1.1	1.3	2.2	1.3
75	1.4	2.1	2.2	1.6	2.1	2.8	2.3	1.3	1.8	1.9	1.5	1.3	2.6	1.3	1.3	1.8	1.6	2.0
90	4.5	2.6	1.6	2.2	1.4	2.5	2.0	1.7	1.8	2.4	2.0	1.9	2.6	1.3	2.2	1.4	1.9	2.7
95	3.5	3.3	2.4	2.8	2.7	3.5	2.5	1.3	1.8	2.5	2.3	1.8	4.0	2.8	2.8	2.5	2.1	3.7
							Black											
5	6.5	7.6	5.2	5.7	9.2	6.5	7.2	5.2	5.7	8.1	6.2	8.2	8.5	6.2	5.4	5.0	7.0	6.6
10	4.5	5.9	6.8	4.2	4.8	2.8	6.8	6.1	4.0	7.4	4.4	6.3	6.8	2.9	3.0	3.2	5.1	6.2
25	4.9	5.5	4.9	4.5	4.9	3.3	6.9	3.4	4.4	4.7	6.1	1.6	5.5	3.3	2.3	5.8	3.4	5.7
50	5.5	4.6	6.0	4.2	3.8	6.2	6.7	4.3	2.4	3.6	3.8	3.5	3.3	3.0	3.2	3.9	2.6	3.5
75	13.6	4.6	7.0	3.3	4.0	3.2	3.7	3.3	2.7	4.6	4.2	3.8	4.6	3.0	4.0	4.3	2.4	3.1
90	10.2	6.0	6.5	3.6	6.4	6.2	5.4	5.7	1.6	3.3	7.1	3.4	7.8	4.9	2.3	4.1	2.1	5.3
95	12.0	5.8	23.2	6.4	6.4	5.3	3.6	4.4	3.1	4.7	3.7	6.7	5.0	3.8	4.4	5.1	3.2	9.6
							Hispanic											
5	13.1	6.0	7.5	5.1	4.9	4.8	13.9	5.9	5.4	6.4	4.9	4.4	10.8	6.2	9.7	10.6	7.9	9.3
10	12.3	6.1	7.6	5.1	5.2	3.5	11.7	7.1	3.7	5.1	3.9	4.9	6.5	8.4	4.1	2.7	8.3	3.2
25	8.7	5.1	7.1	3.4	4.7	4.3	7.6	5.3	3.6	5.0	5.1	2.9	7.5	6.2	4.0	6.0	6.6	3.3
50	6.4	5.1	5.4	4.3	4.6	3.7	7.0	2.9	4.7	2.1	3.2	2.3	8.2	3.9	3.2	4.6	4.9	3.2
75	8.0	4.5	3.8	5.1	4.0	4.4	4.2	2.4	5.0	4.3	3.9	2.6	7.1	8.7	6.0	4.9	4.0	6.6
90	6.5	4.3	4.8	5.5	5.0	4.5	5.8	2.4	3.3	3.3	6.2	4.0	9.8	5.6	3.9	3.5	3.0	3.1
95	7.5	4.8	5.8	3.5	5.1	5.2	7.7	5.4	3.3	3.5	5.7	5.6	16.8	5.4	15.8	3.1	6.8	6.9

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *NAEP 1996 Trends in Academic Progress*, revised 1998.

Table S7 Standard errors for the text table in *Indicator 7*

	Music			Theatre		Visual arts	
Selected student characteristics	Creating (0–100 percent)	Performing (0–100 percent)	Responding (0–300)	Creating/ performing (0–100 percent)	Responding (0–300)	Creating (0–100 percent)	Responding (0–300)
Total	**1.1**	**1.2**	**1.3**	**2.0**	**5.7**	**0.7**	**1.1**
Sex							
Male	1.0	1.4	1.5	2.2	6.6	0.7	1.5
Female	1.6	1.5	1.6	2.1	5.6	0.9	1.4
Race–ethnicity							
White	1.2	1.4	1.4	1.9	4.4	0.9	1.3
Black	3.6	1.9	2.3	2.2	10.1	1.8	2.0
Hispanic	2.7	3.7	3.5	2.5	6.2	1.3	2.0
Asian	3.8	—	6.2	—	—	1.6	6.4
Type of school							
Public	1.2	1.2	1.4	2.1	4.9	0.8	1.1
Nonpublic	2.9	4.7	5.8	—	—	1.6	3.7
Parents' highest education level							
Did not finish high school	2.5	2.4	3.5	2.1	4.4	1.4	2.4
Graduated high school	2.0	2.4	1.3	1.9	8.5	1.1	1.8
Some education after high school	1.3	2.4	1.8	1.8	5.1	0.8	1.8
Graduated college	1.3	1.5	1.7	2.2	5.6	0.7	1.4

— Not available.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *The NAEP 1997 Arts Report Card*, 1998.

Table S7-1 Standard errors for table 7-1

Characteristics of arts education	Music: Creating (0–100 percent)	Music: Performing (0–100 percent)	Music: Responding (0–300)	Theatre: Creating/performing (0–100 percent)	Theatre: Responding (0–300)	Visual arts: Creating (0–100 percent)	Visual arts: Responding (0–300)
Total	**1.1**	**1.2**	**1.3**	**2.0**	**5.7**	**0.7**	**1.1**
Frequency of instruction							
At least 3 or 4 times a week	2.0	2.2	3.0	2.5	4.5	1.3	2.3
Once or twice a week	1.6	1.7	3.2	2.5	18.2	1.3	3.2
Less than once a week	1.7	1.9	4.2	—	—	1.2	4.6
Subject not taught	4.3	—	7.9	—	—	2.1	4.7
District or state curriculum in subject area							
Yes	1.2	1.4	1.7	3.3	5.9	1.0	1.6
No	2.3	2.6	3.5	3.2	10.1	1.1	2.2
Use visiting artists							
Yes	1.5	1.8	2.5	3.4	9.3	1.0	3.7
No	1.7	1.2	2.0	2.3	4.1	1.0	1.9
Position of arts staff person							
Full-time specialist	1.4	1.2	1.8	3.0	5.4	0.9	1.7
Part-time specialist	2.5	3.3	4.5	2.0	18.2	1.7	6.6
Elementary classroom teacher	—	—	—	—	—	1.4	4.2
Other faculty member	—	—	—	—	—	3.7	6.8
Artist-in-residence	—	—	—	—	—	—	—
Volunteer	—	—	—	—	—	—	—
Subject is not taught	—	—	6.8	—	—	2.8	5.9
Type of space where arts is taught							
Room/stage dedicated to subject, with special equipment	1.8	1.7	2.0	2.7	5.2	1.1	2.5
Room/stage dedicated to subject, without special equipment	1.7	2.0	2.8	—	—	1.2	3.0
(For theatre only), Room, no stage	—	—	—	3.4	3.4	—	—
No dedicated space	4.1	2.7	6.6			—	—
Classrooms only	3.6	—	4.7	—	—	1.4	6.4
Other	—	—	—	—	—	—	—
Subject is not taught	—	—	—	—	—	2.0	8.2

— Not available.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *The NAEP 1997 Arts Report Card*, 1998.

Table S8 Standard errors for the text table in *Indicator 8*

Country	Prose scale				Document scale				Quantitative scale			
	Level 1	Level 2	Level 3	Level 4/5	Level 1	Level 2	Level 3	Level 4/5	Level 1	Level 2	Level 3	Level 4/5
Belgium (Flanders)	1.5	2.4	2.7	1.3	1.7	3.0	4.2	1.0	1.8	1.8	2.2	1.4
Canada	1.7	2.0	2.6	2.4	1.9	1.6	2.2	1.5	1.8	2.6	2.8	2.2
Germany	1.3	1.3	1.8	1.2	0.8	1.4	1.2	1.0	0.5	1.3	1.2	1.1
Ireland	1.5	1.8	1.7	1.7	1.8	1.4	1.6	1.4	1.6	1.1	1.1	1.7
Netherlands	0.7	1.1	1.4	1.1	0.8	0.9	1.4	1.1	0.8	1.0	1.1	1.0
New Zealand	1.0	1.3	1.0	0.8	1.1	1.5	1.1	1.0	1.1	1.2	1.2	0.8
Poland	0.9	0.9	0.8	0.6	1.4	1.1	0.9	0.5	1.3	1.4	0.9	0.6
Sweden	0.5	0.7	1.1	0.7	0.4	1.0	1.2	0.9	0.6	0.9	1.2	0.9
Switzerland (French)	1.4	1.9	2.1	0.9	1.4	2.0	1.7	1.4	1.0	1.7	2.0	1.4
Switzerland (German)	1.0	2.0	1.9	1.2	1.4	2.2	1.0	1.3	1.1	1.9	2.1	1.4
United Kingdom	1.1	1.3	1.5	1.0	1.1	1.2	1.1	1.0	0.9	1.3	1.3	1.1
United States	1.1	1.4	1.5	1.4	0.9	1.5	1.2	1.3	0.9	1.5	0.9	1.2

SOURCE: Organisation for Economic Co-operation and Development, *International Adult Literacy Survey*, unpublished tabulations, 1994, 1995.

Table S8-1 Standard errors for table 8-1

	Higest level of education			
Country	Less than high school	High school diploma	Some college	College degree
Belgium (Flanders)	8.3	2.2	1.8	2.4
Canada	3.4	4.0	3.5	4.6
Germany	1.2	3.4	6.5	4.3
Ireland	1.8	3.0	3.2	5.1
Netherlands	1.5	1.6	—	1.8
New Zealand	1.4	2.3	2.4	3.0
Poland	0.9	2.6	3.7	5.8
Sweden	2.5	1.2	2.0	3.2
Switzerland (French)	3.0	2.7	5.1	3.4
Switzerland (German)	4.1	1.9	4.4	5.1
United Kingdom	1.2	2.2	3.1	1.7
United States	2.3	2.8	3.4	1.8

— Not available.

SOURCE: Organisation for Economic Co-operation and Development, *International Adult Literacy Survey*, unpublished tabulations, 1994, 1995.

Table S9 Standard errors for the text table in *Indicator 9*

Citizenship skill	Students			Parents
	Total	Grades 9–10	Grades 11–12	
Political knowledge (correct answers out of five)				
None or one	1.0	1.3	1.4	0.9
Two or three	0.9	1.2	1.4	0.9
Four or five	0.8	0.9	1.3	0.9
Attention to politics				
Read national news at least once a week	1.0	1.3	1.4	1.0
Watch/listen to national news almost daily	1.0	1.3	1.4	0.8
Participation skills				
I could write a letter to a government office	0.5	0.7	0.6	0.4
I could make a statement at a public meeting	0.7	1.1	1.0	0.7
Political efficacy				
I understand politics or government	1.0	1.3	1.4	1.0
My family has a say in what government does	1.0	1.3	1.4	1.0
Tolerance of diversity				
People should be allowed to speak against religion or church	0.6	0.9	0.8	0.7
Controversial books could be kept in a public library	1.0	1.3	1.4	1.0

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey, Spring 1996 (Youth Civic Involvement Component and Parent and Family Involvement in Education and Civic Involvement Component).

Table S9-1 Standard errors for table 9-1

Selected student characteristics	Percentage of students who gave correct answers to political items		
	None or one	Two or three	Four or five
Total	**1.0**	**0.9**	**0.8**
Sex			
Male	1.4	1.3	1.2
Female	1.4	1.3	1.0
Race–ethnicity			
White	1.2	1.1	1.0
Black, Hispanic, or other	1.8	1.6	1.0
Academic performance			
A	1.6	1.7	1.6
B	1.5	1.4	1.1
C	1.9	1.7	1.3
D–F	4.4	4.3	1.9
Language spoken most at home by student			
English	1.0	0.9	0.8
Other	3.8	3.4	2.3
Parents' highest educational level			
Less than high school	3.1	2.8	1.7
High school only	1.8	1.7	1.1
Some college/vocational/technical	1.8	1.7	1.3
Bachelor's degree	2.3	2.4	2.2
Graduate/professional school	2.0	2.1	2.2
Control of school			
Public	1.0	0.9	0.8
Private	3.0	3.1	2.7
Participation in community service during school year			
No participation	1.4	1.2	0.9
Once or twice	2.0	1.9	1.8
Regularly/under 35 hours	2.7	2.6	2.2
Regularly/35 hours or more	2.5	2.4	2.4

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey, Spring 1996 (Youth Civic Involvement Component and Parent and Family Involvement in Education and Civic Involvement Component).

Table S9-2 Standard errors for table 9-2

	Percentage of students who reported:							
	Attention to politics		Political participation skills		Political efficacy		Tolerance of diversity	
Selected student characteristics	They read national news at least once a week	They watch or listen to national news almost daily	They could write a letter to a government office	They could make a statement at a public meeting	They understand politics or government	Their family has a say in what government does	People should be allowed to speak against religion	Controversial books could be kept in a public library
Total	**1.0**	**1.0**	**0.5**	**0.7**	**1.0**	**1.0**	**0.6**	**1.0**
Sex								
Male	1.4	1.4	0.7	1.1	1.3	1.3	0.9	1.4
Female	1.4	1.4	0.6	1.0	1.4	1.3	0.9	1.4
Race–ethnicity								
White	1.2	1.1	0.6	0.9	1.2	1.1	0.7	1.1
Black, Hispanic, or other	1.7	1.8	0.9	1.4	1.8	1.7	1.3	1.8
Academic performance								
A	1.7	1.7	0.7	1.2	1.7	1.6	1.1	1.7
B	1.5	1.5	0.8	1.2	1.2	1.5	0.9	1.5
C	2.0	2.1	1.1	1.6	2.0	2.0	1.4	2.0
D–F	4.5	4.0	2.2	3.7	4.6	4.5	2.4	4.6
Language spoken most at home by student								
English	1.0	1.0	0.5	0.8	1.0	1.0	0.6	1.0
Other	3.8	3.9	2.2	3.0	3.9	4.0	3.5	4.0
Parents' highest educational level								
Less than high school	3.3	3.5	1.8	2.9	3.5	3.6	3.0	3.6
High school only	1.8	1.8	1.0	1.5	1.9	1.9	1.1	1.9
Some college/vocational/technical	1.8	1.8	0.8	1.3	1.8	1.7	1.2	1.8
Bachelor's degree	2.4	2.4	1.0	1.9	2.4	2.2	1.4	2.3
Graduate/professional school	2.2	2.2	0.9	1.6	2.0	1.9	1.1	2.1
Control of school								
Public	1.0	1.0	0.5	0.8	1.0	1.0	0.7	1.0
Private	3.1	3.1	1.0	1.8	2.9	2.8	1.6	3.0
Participation in community service during school year								
No participation	1.4	1.4	0.8	1.2	1.4	1.4	1.0	1.4
Once or twice	2.0	2.0	0.7	1.5	2.1	2.0	1.2	2.0
Regularly/under 35 hours	2.7	2.6	1.1	1.5	2.6	2.5	1.7	2.6
Regularly/35 hours or more	2.6	2.6	1.1	1.5	2.4	2.4	1.4	2.5

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey, Spring 1996 (Youth Civic Involvement Component and Parent and Family Involvement in Education and Civic Involvement Component).

Table S10 Standard errors for the text table in *Indicator 10*

October	Recent high school completers not enrolled in college				Recent high school dropouts			
	Total	White	Black	Hispanic	Total	White	Black	Hispanic
1972	1.7	1.8	5.7	(*)	2.8	3.4	6.4	(*)
1974	1.7	1.8	5.8	5.5	2.7	3.2	5.6	5.2
1976	1.7	1.8	5.8	4.9	2.8	3.2	5.5	5.2
1978	1.6	1.7	5.6	4.5	2.7	3.3	5.1	5.3
1980	1.8	1.8	5.2	4.9	2.8	3.5	5.5	4.8
1982	2.0	2.1	4.7	5.1	3.1	3.8	5.4	5.2
1984	2.1	2.3	5.0	5.1	3.3	4.1	6.9	4.9
1986	2.1	2.3	5.1	5.2	3.4	4.5	8.6	5.1
1988	2.4	2.6	6.1	6.2	3.7	4.7	6.8	6.8
1989	2.5	2.7	7.1	6.8	4.1	5.3	7.4	6.5
1990	2.5	2.8	6.4	6.1	4.1	5.3	8.7	6.2
1991	2.8	3.2	6.2	5.9	4.1	5.5	7.6	5.9
1992	2.7	3.0	6.1	5.9	4.0	5.3	—	6.2
1993	2.7	3.0	7.2	5.6	4.1	5.2	8.6	5.4
1994	2.6	2.8	6.6	5.4	3.7	5.0	8.1	5.0
1995	2.6	2.9	6.5	5.1	3.4	4.7	7.9	4.8
1996	2.8	3.2	6.5	5.2	3.8	5.3	7.1	4.9
1997	2.7	3.1	7.0	(*)	3.8	5.2	7.2	(*)

— Not available.

* Not applicable.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Table S10-1 Standard errors for table 10-1

	Recent high school completers not enrolled in college			Recent high school dropouts		
October	Total	Male	Female	Total	Male	Female
1960	2.7	4.0	3.6	4.7	6.6	6.4
1961	2.7	4.3	3.5	4.6	6.3	6.4
1962	2.6	3.6	3.6	5.0	7.5	5.8
1963	2.7	4.0	3.5	5.2	7.2	6.5
1964	2.5	3.4	3.3	3.5	5.1	4.1
1965	2.2	2.7	3.0	3.3	4.3	4.3
1966	2.3	3.1	3.0	3.6	4.7	4.8
1967	2.0	2.8	2.7	3.0	3.9	4.1
1968	2.0	2.9	2.7	3.0	4.0	4.0
1969	1.9	2.4	2.6	2.9	3.7	3.8
1970	2.0	2.6	2.7	2.8	3.8	3.7
1971	1.9	2.6	2.7	2.9	3.9	3.9
1972	1.7	2.3	2.5	2.8	3.8	3.6
1973	1.7	2.1	2.4	2.7	3.5	4.0
1974	1.7	2.3	2.4	2.7	3.5	3.7
1975	1.8	2.4	2.5	2.8	4.0	3.6
1976	1.7	2.3	2.6	2.8	3.7	3.7
1977	1.7	2.3	2.4	2.7	3.5	3.9
1978	1.6	2.2	2.4	2.7	3.4	3.9
1979	1.7	2.2	2.4	2.7	3.7	3.7
1980	1.8	2.4	2.6	2.8	3.7	4.1
1981	1.9	2.6	2.7	2.9	4.0	3.8
1982	2.0	2.7	2.8	3.1	4.3	4.3
1983	2.0	2.9	2.8	3.3	4.5	4.7
1984	2.1	2.9	2.9	3.3	4.5	4.6
1985	2.3	3.3	3.2	3.3	4.5	4.6
1986	2.1	3.0	2.9	3.4	4.6	4.8
1987	2.2	2.9	3.1	3.5	4.7	5.1
1988	2.4	3.2	3.5	3.7	4.9	5.2
1989	2.5	3.2	3.8	4.1	5.6	6.0
1990	2.5	3.3	3.8	4.1	5.6	5.8
1991	2.8	3.7	4.3	4.1	6.0	5.2
1992	2.7	3.5	4.0	4.0	6.0	5.1
1993	2.7	3.7	3.9	4.1	5.5	5.6
1994	2.6	3.4	3.8	3.7	5.1	4.7
1995	2.6	3.7	3.5	3.4	4.5	5.0
1996	2.8	3.7	4.2	3.8	5.6	5.1
1997	2.7	3.4	4.1	3.8	5.0	5.3

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, *Labor Force Statistics Derived from the Current Population Survey, 1940–87*; and U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Table S11 Standard errors for the text table in *Indicator 11*

	Male				Female			
March	Grades 9–11	High school diploma or GED	Some college	Bachelor's degree or higher	Grades 9–11	High school diploma or GED	Some college	Bachelor's degree or higher
1971	1.2	0.5	1.0	0.8	1.5	0.9	1.7	1.8
1973	1.1	0.5	1.0	0.7	1.5	0.9	1.6	1.6
1975	1.5	0.6	0.9	0.6	1.5	0.9	1.5	1.3
1977	1.5	0.6	0.8	0.6	1.6	0.9	1.3	1.2
1979	1.5	0.6	0.7	0.5	1.7	0.9	1.2	1.1
1981	1.5	0.6	0.7	0.5	1.7	0.8	1.1	1.0
1983	1.8	0.8	0.9	0.6	1.7	0.8	1.1	1.0
1985	1.6	0.6	0.7	0.6	1.8	0.8	1.1	0.9
1987	1.5	0.6	0.8	0.6	1.8	0.8	1.0	0.9
1989	1.6	0.6	0.8	0.6	2.0	0.8	1.1	0.9
1990	1.5	0.6	0.8	0.6	1.9	0.8	1.0	0.9
1991	1.7	0.6	0.8	0.6	1.8	0.8	1.1	0.9
1992	1.7	0.7	0.8	0.7	1.8	0.9	1.0	0.9
1993	1.7	0.7	0.8	0.6	1.9	0.9	0.9	0.9
1994	1.6	0.7	0.7	0.6	1.9	0.9	0.9	0.9
1995	1.7	0.7	0.7	0.6	2.0	0.9	0.9	0.9
1996	1.7	0.7	0.8	0.6	2.1	1.0	0.9	0.9
1997	1.7	0.8	0.7	0.6	2.1	1.0	1.0	0.9
1998	1.7	0.7	0.7	0.6	2.2	1.0	1.0	0.8

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

Table S12 Standard errors for the text table in *Indicator 12*

Year	Grades 9–11		Some college		Bachelor's degree or higher	
	Male	Female	Male	Female	Male	Female
1970	0.02	0.04	0.02	0.09	0.02	0.09
1972	0.02	0.05	0.02	0.07	0.02	0.07
1974	0.02	0.05	0.02	0.05	0.02	0.06
1976	0.02	0.04	0.02	0.05	0.02	0.05
1978	0.03	0.02	0.03	0.04	0.03	0.05
1980	0.02	0.04	0.02	0.04	0.02	0.04
1982	0.02	0.04	0.02	0.03	0.02	0.05
1984	0.03	0.04	0.04	0.03	0.05	0.04
1986	0.02	0.04	0.02	0.04	0.03	0.04
1988	0.03	0.03	0.02	0.04	0.04	0.03
1990	0.03	0.04	0.03	0.03	0.03	0.04
1991	0.03	0.05	0.03	0.03	0.02	0.04
1992	0.03	0.04	0.03	0.04	0.03	0.05
1993	0.03	0.03	0.02	0.04	0.03	0.06
1994	0.03	0.04	0.03	0.03	0.03	0.05
1995	0.02	0.03	0.03	0.04	0.05	0.06
1996	0.02	0.04	0.02	0.04	0.03	0.05
1997	0.02	0.05	0.02	0.04	0.03	0.05

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

Table S12-1 Standard errors for table 12-1

Year	Grades 9–11	High school completion	Some college	Bachelor's degree or higher
1970	0.25	0.08	0.15	0.06
1971	0.21	0.08	0.14	0.05
1972	0.25	0.08	0.10	0.05
1973	0.21	0.07	0.08	0.04
1974	0.23	0.06	0.07	0.04
1975	0.14	0.06	0.06	0.04
1976	0.20	0.05	0.07	0.04
1977	0.21	0.05	0.05	0.04
1978	0.16	0.06	0.07	0.04
1979	0.14	0.05	0.05	0.03
1980	0.16	0.04	0.04	0.03
1981	0.13	0.04	0.04	0.04
1982	0.13	0.04	0.04	0.03
1983	0.12	0.04	0.04	0.03
1984	0.14	0.06	0.04	0.04
1985	0.11	0.03	0.04	0.03
1986	0.11	0.03	0.05	0.03
1987	0.11	0.03	0.04	0.03
1988	0.14	0.03	0.04	0.03
1989	0.16	0.03	0.04	0.03
1990	0.16	0.03	0.04	0.03
1991	0.14	0.03	0.04	0.03
1992	0.09	0.04	0.03	0.02
1993	0.12	0.04	0.03	0.02
1994	0.14	0.04	0.04	0.02
1995	0.10	0.05	0.04	0.04
1996	0.12	0.04	0.03	0.02
1997	0.15	0.04	0.03	0.03

SOURCE: U.S. Department of Commerce, Bureau of the Census,
March Current Population Surveys.

Table S13 Standard errors for the text table in *Indicator 13*

Parents' educational attainment and undergraduate borrowing status	No advanced degree, not enrolled	Attained advanced degree or currently enrolled			
		Total	No advanced degree, enrolled	Attained, not enrolled	Attained and enrolled
Total	**0.6**	**0.6**	**0.4**	**0.4**	**0.1**
Parents' educational attainment					
Less than high school	2.1	2.1	1.2	1.7	0.5
High school diploma or equivalency credential	0.9	0.9	0.7	0.6	0.2
Some postsecondary education	1.2	1.2	0.8	0.9	0.4
Bachelor's degree	1.1	1.1	0.8	0.8	0.2
Advanced degree	1.3	1.3	0.9	1.0	0.3
Undergraduate borrowing status (federal loans)					
Did not borrow	0.8	0.8	0.6	0.6	0.2
Borrowed	0.8	0.8	0.6	0.5	0.1
Less than $1,000	5.2	5.2	4.9	1.6	0.9
$1,000–4,999	1.4	1.4	1.0	1.0	0.3
$5,000–9,999	1.2	1.2	0.9	0.9	0.2
$10,000–19,999	1.3	1.3	0.9	0.9	0.3
$20,000 or more	3.7	3.7	1.8	3.2	1.1

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 Baccalaureate and Beyond Longitudinal Study, Second Follow-up (B&B:93/97), Data Analysis System.

Table S13-1 Standard errors for table 13-1

	Employment and enrollment status in April 1997			
Selected student characteristics	Employed and not enrolled	Enrolled and employed	Enrolled and not employed	Not employed and not enrolled
Total	**0.6**	**0.5**	**0.3**	**0.3**
Sex				
Male	0.9	0.6	0.5	0.4
Female	0.8	0.6	0.4	0.5
Race–ethnicity				
White	0.6	0.5	0.3	0.4
Black	2.3	1.8	1.0	0.9
Hispanic	2.6	2.3	1.4	1.5
Asian/Pacific Islander	2.8	1.8	1.6	2.0
American Indian/Alaskan Native	6.4	3.2	3.4	4.8
Marital status in April 1997				
Never married	0.9	0.7	0.5	0.4
Married/cohabit as married	0.8	0.6	0.3	0.5
Divorced/separated/widowed	2.5	2.1	1.5	1.1
Number of children				
No children	0.8	0.6	0.3	0.4
One	1.0	0.7	0.6	0.6
Two or more children	1.3	1.2	0.4	0.7
Baccalaureate degree major				
Professional fields	0.7	0.5	0.4	0.3
Arts and sciences	1.4	1.0	0.6	1.0
Other	1.8	1.3	0.3	1.5
Baccalaureate degree major				
Business and management	1.2	0.8	0.5	0.7
Education	1.4	1.3	0.5	0.8
Engineering	1.8	1.6	0.7	0.5
Health professions	2.1	1.3	1.0	1.5
Public affairs/social services	3.2	2.8	0.4	1.3
Biological sciences	2.8	2.4	2.5	1.3
Mathematics and other sciences	2.2	1.7	1.2	1.1
Social science	1.7	1.5	0.9	1.0
History	4.4	2.8	3.0	1.3
Humanities	1.8	1.4	0.8	1.4
Psychology	3.4	2.5	2.0	2.5
Other	1.3	1.2	0.4	0.7

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 Baccalaureate and Beyond Longitudinal Study, Second Follow-up (B&B:93/97), Data Analysis System.

Table S14(a) Standard errors for the first text table in *Indicator 14*

Sex and race–ethnicity	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Total	**1.2**	**1.4**	**1.5**	**1.4**	**2.0**	**2.2**	**2.5**	**2.9**	**2.7**	**2.8**	**2.4**	**2.7**	**2.9**	**2.8**
Sex														
Male	1.6	2.1	2.1	2.1	2.6	3.0	3.8	3.8	3.5	3.7	3.0	3.3	4.0	3.5
Female	1.7	1.9	2.0	1.9	3.1	3.2	3.4	4.5	4.1	4.3	4.0	4.3	4.9	4.3
Race–ethnicity														
White	1.3	1.7	1.7	1.6	2.4	2.7	3.1	3.6	3.3	3.3	3.0	3.3	3.7	3.4
Black	0.6	0.8	0.8	0.8	1.7	1.4	2.0	2.0	1.8	2.2	1.8	2.1	1.8	2.1
Hispanic	3.3	2.5	3.4	3.5	7.4	7.9	6.3	9.2	7.7	9.3	4.2	5.2	4.9	5.8

SOURCE: The College Board, Advanced Placement Program, *National Summary Reports*, various years (Copyright © 1984–97 by the College Entrance Examination Board. All rights reserved.). U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Table S14(b) Standard errors for the second text table in *Indicator 14*

	Number of AP examinations taken						Number of examinations with scores of 3 or higher					
Sex and race–ethnicity	Social studies	English	Foreign language	Cal-culus	Computer science	Science	Social studies	English	Foreign language	Cal-culus	Computer science	Science
Total	**1.2**	**1.2**	**0.4**	**0.7**	**0.1**	**0.7**	**0.7**	**0.8**	**0.3**	**0.4**	***0.0**	**0.5**
Sex												
Male	1.9	1.3	0.4	1.1	0.1	1.2	1.2	0.9	0.3	0.7	0.1	0.9
Female	2.1	2.1	0.7	0.9	*0.0	1.0	1.2	1.4	0.5	0.5	*0.0	0.6
Race–ethnicity												
White	1.6	1.5	0.3	0.8	0.1	0.9	1.0	1.1	0.2	0.5	*0.0	0.6
Black	0.8	0.9	0.2	0.4	*0.0	0.4	0.3	0.3	0.1	0.1	*0.0	0.1
Hispanic	1.8	1.8	2.8	0.8	0.1	0.8	0.8	0.9	2.5	0.4	*0.0	0.4

* Standard errors less than 0.05 are rounded to 0.0.

SOURCE: The College Board, Advanced Placement Program, *National Summary Reports* (Copyright © 1997 by the College Entrance Examination Board. All rights reserved.). U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Table S15 Standard errors for the text table in *Indicator 15*

Class ability level	Tasks done in class				Tasks done as homework		
	Linked school and real world	Ordered events/ things and explained order	Solved problems with several answers	Worked on problems with several solution methods	Conducted project or experiment	Worked on problems with no obvious solution	Applied concepts in new context
Total	**1.0**	**1.0**	**1.0**	**1.1**	**0.9**	**0.7**	**1.0**
Above school average	2.6	3.0	3.0	2.6	2.5	2.3	2.3
At school average	2.2	2.2	2.0	1.9	1.6	1.5	2.2
Below school average	2.8	2.3	3.1	3.4	2.2	1.5	3.1
Mixed	1.9	2.0	2.0	2.1	1.5	1.2	1.9

SOURCE: U.S. Department of Education, National Center for Education Statistics, Teacher Follow-up Survey, 1994–95.

Table S16 Standard errors for the text table in *Indicator 16*

	Practice computational skills				Do reasoning tasks			
Country	Never or almost never	Some lessons	Most lessons	Every lesson	Never or almost never	Some lessons	Most lessons	Every lesson
Canada	1.7	4.0	4.1	2.8	0.0	3.0	3.8	3.6
England	1.6	2.6	2.8	1.9	0.0	2.7	3.0	2.1
France	2.1	4.8	4.2	2.1	0.0	4.3	4.7	3.8
Germany	3.3	5.0	4.4	2.8	1.0	4.4	4.8	3.9
Japan	—	—	—	—	0.0	2.2	4.4	4.3
United States	1.9	3.4	4.4	3.9	0.0	3.4	3.5	3.3

— Not available.

SOURCE: International Association for the Evaluation of Educational Achievement, TIMSS International Study Center, *Mathematics Achievement in the Middle School Years*, 1996.

Table S16-1 Standard errors for table 16-1

Country	Once in a while or never	Pretty often	Almost always
Australia	1.2	0.9	0.9
Austria	1.6	1.2	0.8
Belgium (Flemish)	0.8	1.7	2.0
Belgium (French)	1.7	1.7	1.2
Canada	1.3	1.2	1.3
Colombia	1.2	0.8	1.4
Cyprus	1.2	1.1	0.8
Czech Republic	1.3	1.2	0.4
Denmark	1.8	1.5	0.9
England	1.4	1.2	0.8
France	1.4	1.4	0.9
Germany	2.0	1.4	1.1
Greece	1.6	1.2	0.8
Hong Kong	2.2	1.3	2.4
Hungary	1.2	0.9	0.6
Iceland	1.7	1.8	1.2
Iran, Islamic Republic	1.8	1.2	1.2
Ireland	2.1	1.6	1.0
Israel	3.3	2.4	2.0
Japan	2.3	1.6	1.5
Korea	1.5	1.3	0.6
Kuwait	1.7	1.3	2.1
Latvia (Latvian-speaking schools)	1.4	1.2	0.4
Lithuania	1.6	1.4	0.8
Netherlands	1.6	1.3	0.9
New Zealand	1.7	1.1	1.2
Norway	1.3	1.3	0.4
Portugal	1.6	1.2	1.0
Romania	1.1	1.1	1.1
Russian Federation	1.5	2.0	1.4
Scotland	1.8	1.4	0.9
Singapore	1.2	1.0	0.9
Slovak Republic	1.6	1.4	0.5
Slovenia	1.6	1.4	1.0
Spain	1.4	1.2	1.3
Sweden	1.6	1.4	0.5
Switzerland	1.2	1.2	0.7
Thailand	1.7	0.9	1.2
United States	0.9	1.1	1.1

SOURCE: International Association for the Evaluation of Educational Achievement, TIMSS International Study Center, *Mathematics Achievement in the Middle School Years*, 1996.

Table S16-2 Standard errors for table 16-2

	Deciding which topics to teach			Deciding how to present a topic		
Country	Curriculum guide	Textbook	Examination specifications	Curriculum guide	Textbook	Examination specifications
Australia	2.0	2.0	—	2.4	2.4	—
Austria	4.2	4.2	0.2	3.9	3.8	0.2
Belgium (Flemish)	2.7	2.7	—	2.3	2.3	—
Belgium (French)	4.6	4.6	—	1.4	1.4	—
Canada	—	—	—	—	—	—
Colombia	5.2	5.1	1.3	5.9	5.8	0.7
Cyprus	5.7	5.7	0.0	4.3	4.3	0.0
Czech Republic	4.6	4.6	—	3.4	3.4	—
Denmark	—	—	—	—	—	—
England	—	—	—	—	—	—
France	2.6	2.4	0.9	2.9	2.9	0.0
Germany	4.1	4.1	—	5.4	5.4	—
Greece	4.1	4.1	—	1.9	1.9	—
Hong Kong	6.3	6.0	2.2	4.5	4.5	0.0
Hungary	3.1	3.1	1.3	3.2	3.1	0.8
Iceland	8.1	8.1	0.1	3.9	4.0	0.1
Iran, Islamic Republic	4.9	4.7	2.1	5.9	5.6	2.7
Ireland	4.8	4.8	—	3.6	3.6	—
Israel	4.9	3.1	3.6	6.5	7.2	3.3
Japan	3.4	3.5	1.1	2.4	2.8	1.4
Korea	3.4	3.6	1.1	3.2	3.5	1.7
Kuwait	—	—	—	—	—	—
Latvia (Latvian-speaking schools)	4.0	3.7	1.5	3.2	3.8	1.8
Lithuania	3.1	2.8	1.3	2.3	2.2	0.9
Netherlands	1.3	4.0	3.8	0.8	2.8	2.7
New Zealand	2.6	1.9	1.7	4.3	4.3	0.0
Norway	4.8	4.8	—	2.9	2.9	—
Portugal	3.1	3.1	—	4.9	4.9	—
Romania	2.2	1.5	1.6	3.7	3.8	2.1
Russian Federation	4.4	2.8	3.2	2.5	3.6	2.7
Scotland	4.3	3.5	3.6	4.7	5.1	2.9
Singapore	3.5	3.5	0.2	2.8	2.8	0.4
Slovak Republic	3.6	3.6	0.0	3.0	3.1	0.8
Slovenia	3.7	3.1	2.0	4.5	4.8	1.6
Spain	—	—	—	—	—	—
Sweden	3.8	3.8	—	1.7	1.7	—
Switzerland	4.6	4.6	0.6	—	—	—
Thailand	6.3	6.4	3.3	4.5	4.5	0.0
United States	3.7	3.3	1.3	2.3	2.4	1.2

— Not available.

SOURCE: International Association for the Evaluation of Educational Achievement, TIMSS International Study Center, *Mathematics Achievement in the Middle School Years*, 1996.

Table S17 Standard errors for the text table in *Indicator 17*

School characteristics	Percentage of schools with Internet access					Percentage of instructional rooms with Internet access				
	1994	1995	1996	1997	1998	1994	1995	1996	1997	1998
Total	**1.5**	**1.8**	**1.8**	**1.5**	**1.3**	**0.3**	**0.7**	**1.0**	**1.6**	**1.8**
Level of school										
Elementary	1.9	2.4	2.1	2.0	1.6	0.4	1.0	1.5	1.9	2.3
Secondary	2.4	2.7	1.8	1.7	2.1	0.6	1.0	1.5	2.0	2.1
Percentage of students eligible for free or reduced-price lunch										
Less than 11	3.1	3.5	3.6	3.3	5.6	0.9	1.6	2.9	4.2	4.0
11–30	2.8	3.6	3.1	2.8	2.0	0.8	1.8	2.0	2.3	3.1
31–70	3.2	2.9	3.2	2.4	1.6	0.8	1.6	1.8	2.7	3.0
71 or more	4.5	4.3	5.2	4.9	3.3	0.9	0.9	1.6	2.3	4.1
Percentage of minority students enrolled										
Less than 6	2.4	3.3	3.4	2.7	2.9	2.7	1.4	2.4	3.5	2.7
6–20	3.3	4.4	3.0	2.7	2.5	1.7	1.5	2.2	3.0	3.3
21–49	3.2	4.0	3.2	4.2	3.5	1.9	2.1	2.3	2.8	3.7
50 or more	2.9	3.8	4.6	4.7	2.9	0.4	1.0	1.5	1.9	3.2

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Internet Access in Public Schools," Issue Brief, February 1998, and "Internet Access in Public Schools, 1994–1998," Issue Brief, February 1999.

Table S17-1 Standard errors for table 17-1

Level of school	Percentage of schools with Internet access		Percentage of instructional rooms with Internet access	
	Public	Private	Public	Private
Total	**1.8**	**1.4**	**0.7**	**0.6**
Elementary	2.4	2.0	1.0	0.5
Secondary	2.7	4.7	1.0	0.8
Combined	—	2.6	—	1.9

— Not available.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Advanced Telecommunications in U.S. Public Elementary and Secondary Schools, Fall 1996*, 1997, and *Advanced Telecommunications in U.S. Private Schools, K–12, Fall 1995*, 1997.

Table S17-2 Standard errors for table 17-2

Internet capabilities	Available	Member of the school community with access to Internet capability		
		Teachers	Administrative staff	Students
E-mail	1.3	1.7	1.2	2.2
News groups	2.1	1.5	2.0	2.7
Resource location services (e.g., Gopher, Archie, Veronica, etc.)	2.4	1.3	1.6	2.4
World Wide Web access (e.g., browsers such as Netscape, MOSAIC)	1.6	1.2	1.4	2.2

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Advanced Telecommunications in U.S. Public Elementary and Secondary Schools, Fall 1996*, 1997.

Table S18 Standard errors for the text table in *Indicator 18*

Current grade level, race–ethnicity, and family income	1984			1989			1993			1997		
	Used a computer at:			Used a computer at:			Used a computer at:			Used a computer at:		
	School	Home	Home or school	School	Home	Home or school	School	Home	Home or school	School	Home	Home or school
Total (Grades 1–12)	**0.3**	**0.2**	**0.4**	**0.4**	**0.3**	**0.4**	**0.4**	**0.3**	**0.4**	**0.3**	**0.3**	**0.3**
						Grades 1–6						
Total	**0.5**	**0.4**	**0.6**	**0.6**	**0.4**	**0.6**	**0.5**	**0.5**	**0.5**	**0.4**	**0.5**	**0.4**
Race–ethnicity												
White	0.7	0.5	0.7	0.7	0.6	0.7	0.6	0.6	0.6	0.5	0.7	0.4
Black	1.1	0.7	1.1	1.4	0.7	1.5	1.4	0.8	1.4	1.1	0.9	1.1
Hispanic	1.3	0.7	1.4	1.9	0.9	1.9	1.6	0.8	1.6	1.0	0.8	0.9
Family income												
Low income	1.1	0.4	1.1	1.5	0.7	1.5	1.4	0.7	1.4	1.2	0.8	1.1
Middle income	0.7	0.4	0.7	0.8	0.6	0.8	0.7	0.6	0.7	0.6	0.7	0.5
High income	1.2	1.0	1.2	1.1	1.1	1.1	1.0	1.1	0.9	0.7	0.9	0.5
						Grades 7–12						
Total	**0.5**	**0.4**	**0.5**	**0.6**	**0.5**	**0.6**	**0.5**	**0.5**	**0.5**	**0.4**	**0.5**	**0.4**
Race–ethnicity												
White	0.6	0.4	0.6	0.7	0.6	0.7	0.7	0.6	0.6	0.5	0.6	0.4
Black	1.2	0.7	1.3	1.7	1.0	1.7	1.6	1.0	1.6	1.2	1.1	1.1
Hispanic	2.2	1.0	2.3	2.9	1.7	3.0	2.5	1.4	2.4	1.5	1.3	1.5
Family income												
Low income	1.1	0.5	1.2	1.5	0.7	1.5	1.4	0.7	1.4	1.2	0.9	1.2
Middle income	0.6	0.4	0.7	0.8	0.6	0.8	0.7	0.6	0.7	0.6	0.7	0.5
High income	0.9	0.8	1.0	1.1	1.1	1.1	1.0	1.1	0.9	0.8	0.8	0.5

NOTE: Data for 1984, 1989, and 1993 are revised from previously published figures.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Table S18-1 Standard errors for table 18-1

Current grade level, race–ethnicity, and family income	Word processing	E-mail	Internet	School assignments	Databases	Graphics/ design
Total (Grades 1–12)	**0.4**	**0.3**	**0.3**	**0.5**	**0.1**	**0.3**
			Grades 1–6			
Total	**0.6**	**0.4**	**0.4**	**0.7**	**0.0**	**0.5**
Race–ethnicity						
White	0.7	0.4	0.5	0.8	0.0	0.5
Black	1.3	0.7	0.8	1.9	0.0	1.0
Hispanic	1.4	0.6	1.0	1.7	0.0	1.0
Family income						
Low income	1.8	1.1	1.2	2.3	0.0	1.4
Middle income	0.7	0.4	0.5	0.9	0.0	0.6
High income	1.0	0.7	0.8	1.1	0.0	0.8
			Grades 7–12			
Total	**0.6**	**0.5**	**0.6**	**0.6**	**0.2**	**0.5**
Race–ethnicity						
White	0.7	0.6	0.6	0.7	0.3	0.6
Black	2.2	1.2	1.6	2.4	0.5	1.4
Hispanic	2.8	1.7	2.2	2.9	0.8	1.9
Family income						
Low income	2.4	1.5	1.7	2.7	0.5	1.6
Middle income	0.9	0.6	0.7	0.9	0.3	0.6
High income	1.0	0.9	1.0	0.9	0.4	0.8

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Table S19 Standard errors for the text table in *Indicator 19*

Selected student characteristics	Grade 4					Grade 8				
	Drill and practice	Demonstration of new topics	Playing math/learning games	Simulations and applications	Not used	Drill and practice	Demonstration of new topics	Playing math/learning games	Simulations and applications	Not used
Total	**2.1**	**0.6**	**2.5**	**1.1**	**2.6**	**2.2**	**1.3**	**2.1**	**2.6**	**3.5**
Sex										
Male	2.4	0.8	2.6	1.0	2.7	2.3	1.3	2.0	2.8	3.4
Female	2.4	0.5	2.5	1.3	2.6	2.3	1.4	2.4	2.4	3.8
Race–ethnicity										
White	2.4	0.7	2.7	1.2	2.9	2.5	1.7	2.3	3.5	4.3
Black	4.0	1.7	3.9	1.9	4.0	4.8	1.4	4.9	1.9	6.7
Hispanic	3.5	0.5	4.1	1.3	3.4	3.0	1.0	4.3	2.0	4.3
Title I participation										
Participated	3.6	0.7	4.2	3.1	4.2	6.4	6.3	6.9	2.2	6.5
Did not participate	2.3	0.7	2.5	1.0	2.8	2.4	1.0	2.2	2.9	3.8

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *1996 Summary Data Tables: Teacher Reports for Mathematics and Science*, 1998.

Table S21(a) Standard errors for the first text table in *Indicator 21*

Writing habit	Grade 4						Grade 8						Grade 11					
	1984	1988	1990	1992	1994	1996	1984	1988	1990	1992	1994	1996	1984	1988	1990	1992	1994	1996
Keep a diary/ journal	—	—	—	—	—	—	1.8	1.6	1.6	1.5	1.4	1.2	1.4	1.6	1.1	1.1	1.2	1.5
Write for school paper	—	—	—	—	—	—	1.1	1.0	1.0	1.3	0.9	1.0	0.8	0.8	0.8	0.7	1.2	0.8
Write letters to relatives	2.1	1.4	1.5	1.5	1.1	1.3	2.0	1.4	1.6	1.7	1.9	2.0	1.8	2.0	1.6	1.4	2.0	1.5
Write notes or messages	2.4	1.9	1.8	1.5	1.7	1.4	2.0	1.3	1.4	1.6	1.3	1.7	1.9	1.6	1.1	1.1	1.4	1.8
Write stories	1.8	1.7	1.4	1.4	1.2	1.4	1.0	1.3	0.9	1.1	0.9	1.1	1.1	1.3	1.2	1.3	1.3	1.3

— Not available.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *Almanac: Reading 1984 to 1996, Writing 1984 to 1996*, 1998.

Table S21(b) Standard errors for the second text table in *Indicator 21*

	Age 9						Age 13						Age 17					
Frequency	1984	1988	1990	1992	1994	1996	1984	1988	1990	1992	1994	1996	1984	1988	1990	1992	1994	1996
Almost every day	1.0	1.8	1.8	1.2	1.6	1.9	1.0	2.4	1.7	2.4	1.8	1.9	0.8	1.9	2.1	1.5	2.6	2.0
1–2 times a week	0.8	1.3	1.3	1.2	1.5	1.8	1.2	2.2	1.7	1.8	2.1	2.1	1.1	2.6	2.0	1.5	1.9	2.7
1–2 times a month	0.6	0.8	0.6	0.5	0.6	1.0	0.8	1.6	1.3	1.5	1.7	1.4	0.5	2.2	1.3	1.4	1.5	1.5
Few times a year	0.3	0.6	0.6	0.4	0.6	0.5	0.5	1.3	1.1	1.1	1.2	1.2	0.5	1.1	1.4	1.2	1.5	1.6
Never/hardly ever	0.5	0.9	0.9	0.7	0.8	0.8	0.6	0.9	1.3	1.5	1.7	1.5	0.6	1.6	1.3	1.3	1.4	2.1

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *Almanac: Reading 1984 to 1996, Writing 1984 to 1996*, 1998.

Table S21-1 Standard errors for table 21-1

	Age 9						Age 13						Age 17					
Frequency	1984	1988	1990	1992	1994	1996	1984	1988	1990	1992	1994	1996	1984	1988	1990	1992	1994	1996
Almost every day	1.1	1.9	2.3	1.6	2.3	2.1	1.4	3.1	2.9	2.5	3.2	3.3	1.5	4.0	2.9	3.7	4.2	5.2
1–2 times a week	1.7	2.8	3.0	2.2	3.1	2.7	1.4	3.5	3.6	3.8	3.1	3.1	1.7	3.5	3.7	3.7	4.1	4.0
1–2 times a month	3.3	7.1	5.5	7.8	5.8	5.2	2.1	2.9	4.3	3.2	5.7	4.5	1.8	3.6	4.2	4.7	4.5	5.6
Few times a year	4.2	8.3	7.2	5.5	7.9	8.9	3.6	4.3	4.3	8.2	5.4	6.0	2.7	5.4	5.6	5.2	8.2	5.6
Never/hardly ever	2.7	3.1	3.5	3.7	3.9	4.5	2.5	4.8	5.0	6.4	5.1	4.7	2.4	7.2	6.8	5.5	5.2	5.0

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *Almanac: Reading 1984 to 1996, Writing 1984 to 1996*, 1998.

Table S21-2 Standard errors for table 21-2

Type of material	Age 9						Age 13						Age 17					
	1984	1988	1990	1992	1994	1996	1984	1988	1990	1992	1994	1996	1984	1988	1990	1992	1994	1996
At school																		
Newspaper or magazine	0.3	0.8	0.4	0.5	0.5	0.5	0.2	0.4	0.5	0.5	0.5	0.5	0.3	0.5	0.4	0.6	0.6	0.6
Play	0.1	0.5	0.4	0.3	0.2	0.3	0.3	0.4	0.3	0.4	0.3	0.5	0.4	0.9	0.5	0.4	0.5	0.8
Poem	0.2	0.4	0.4	0.4	0.4	0.5	0.1	0.3	0.2	0.4	0.2	0.3	0.3	0.5	0.4	0.4	0.7	0.5
Story/novel	0.8	1.1	1.0	1.0	1.6	1.2	1.1	1.5	1.1	1.3	1.2	1.4	1.1	1.6	1.2	1.4	1.0	1.1
Science book	0.9	1.5	1.0	0.8	1.2	1.1	0.8	1.4	1.2	0.8	1.3	0.9	0.5	0.9	0.7	0.6	0.7	0.7
Social studies book	0.9	1.4	1.2	1.0	0.7	1.4	0.9	1.2	1.0	0.9	0.9	1.1	0.7	0.9	0.6	0.7	0.7	0.6
Math book	0.7	1.2	0.8	0.8	0.9	0.8	0.5	0.8	0.8	1.0	0.7	0.9	0.4	0.7	0.6	0.5	0.6	0.7
Workbook	0.5	0.6	1.1	0.8	1.2	0.8	0.3	0.6	0.5	0.5	0.5	0.3	0.2	0.4	0.4	0.3	0.4	0.4
On own																		
Newspaper	0.4	0.6	0.4	0.3	0.5	0.4	0.6	0.8	0.6	0.7	0.5	0.5	0.6	0.9	0.9	0.9	0.9	0.9
Magazine	0.5	0.7	0.7	0.6	0.9	0.9	0.8	0.8	1.0	1.0	1.2	1.0	0.6	1.3	0.8	1.3	1.2	1.2
Play	0.2	0.4	0.3	0.3	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.2	0.1
Poem	0.3	0.4	0.4	0.5	0.4	0.5	0.1	0.3	0.2	0.3	0.2	0.3	0.1	0.2	0.2	0.3	0.4	0.3
Story/novel	0.9	1.1	1.0	1.1	1.2	1.0	0.8	0.9	1.0	1.4	1.1	1.1	0.6	0.9	0.8	1.1	1.0	1.1
Science book	0.2	0.5	0.4	0.3	0.3	0.4	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2
Social studies book	0.3	0.4	0.4	0.2	0.3	0.4	0.1	0.2	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2
Math book	0.2	0.4	0.3	0.3	0.3	0.3	0.1	0.1	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1
Workbook	0.3	0.3	0.3	0.3	0.4	0.4	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1
Something else	0.4	0.7	0.7	0.5	0.6	0.8	0.3	0.4	0.5	0.5	0.4	0.4	0.2	0.4	0.4	0.3	0.4	0.4

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress. *Almanac: Reading 1984 to 1994, Writing 1984 to 1996*, 1996.

Table S22 Standard errors for the text table in *Indicator 22*

Requirements in teacher hiring	1987–88	1990–91	1993–94
Full standard state certification for field to be taught	0.6	0.9	0.9
Graduation from state-approved teacher education program	0.9	1.1	0.9
Emergency or temporary state certification	0.9	1.1	0.9
College major/minor in field to be taught	1.0	1.1	1.1
Passage of state test of basic skills	0.9	1.0	0.9
Passage of state test of subject knowledge	0.6	1.1	0.9
Passage of the National Teachers Examination (NTE)	0.7	1.0	0.9
Passage of district test of basic skills or subject knowledge	0.2	0.7	0.3

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1987–88, 1990–91, and 1993–94 (Teacher Demand and Shortage Questionnaire for Public School Districts).

Table S22-1 Standard errors for table 22-1

District characteristics	Requirements in teacher hiring: Full standard state certification for field to be taught	Graduation from state-approved teacher education program	Emergency or temporary state certification	College major or minor in field to be taught	Passage of state test of basic skills	Passage of state test of subject knowledge	Passage of the National Teachers Examination (NTE)	Passage of district test of basic skills or subject knowledge
Total	**0.9**	**0.9**	**0.9**	**1.1**	**0.9**	**0.9**	**0.9**	**0.3**
Percentage of students eligible for free or reduced-price lunch								
0–5	4.4	4.9	4.8	5.1	5.1	5.3	5.3	0.6
6–20	1.1	2.5	2.0	2.7	2.7	2.6	2.1	0.2
21–40	1.3	1.4	1.8	1.6	1.5	1.4	1.4	0.5
41 or more	1.5	1.6	1.5	1.6	1.3	1.1	1.0	0.2
Percentage of minority students enrolled								
Less than 5	1.1	1.2	1.4	1.7	1.6	1.5	1.7	0.6
5–19	1.4	1.5	1.5	1.9	1.6	1.8	1.8	0.2
20–49	1.8	2.7	2.3	2.9	3.0	2.5	1.9	0.4
50 or more	3.4	4.6	3.1	4.3	2.0	2.8	2.8	0.5

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1993–94 Teacher Demand and Shortage Questionnaire for Public School Districts).

Table S22-2 Standard errors for table 22-2

State	Requirements in teacher hiring: Full standard state certification for field to be taught	Graduation from state-approved teacher education program	Emergency or temporary state certification	College major or minor in field to be taught	Passage of state test of basic skills	Passage of state test of subject knowledge	Passage of the National Teachers Examination (NTE)	Passage of district test of basic skills or subject knowledge
Northeast	**1.2**	**1.8**	**2.0**	**2.0**	**1.6**	**1.5**	**2.0**	**0.6**
Connecticut	1.4	5.6	7.7	6.9	4.9	4.9	2.4	1.7
Maine	2.8	5.8	6.0	5.2	7.1	3.5	5.8	*0.0
Massachusetts	4.5	5.4	4.2	5.0	1.6	1.7	0.6	0.6
New Hampshire	4.5	6.2	5.0	5.4	2.2	2.2	—	—
New Jersey	4.1	6.0	6.3	6.5	6.1	5.9	6.9	0.7
New York	1.7	3.5	3.7	3.7	4.2	4.2	2.8	1.1
Pennsylvania	1.5	4.3	5.1	3.5	3.2	3.1	4.2	2.7
Rhode Island	—	0.5	2.5	0.4	2.2	2.2	0.5	0.4
Vermont	1.2	5.2	4.3	4.5	0.6	0.6	0.7	1.7
Midwest	**1.2**	**1.3**	**1.4**	**1.9**	**1.6**	**1.7**	**1.9**	**0.7**
Illinois	3.9	4.8	4.8	5.3	3.8	4.3	3.0	1.2
Indiana	3.2	3.7	4.0	3.6	4.0	4.4	3.9	2.3
Iowa	3.4	3.9	3.5	4.8	—	—	0.1	—
Kansas	2.6	3.3	4.2	4.1	3.3	4.6	4.1	2.1
Michigan	2.1	3.2	5.7	3.2	7.7	7.8	10.6	0.9
Minnesota	3.0	3.6	3.8	3.7	4.8	3.8	1.7	2.0
Missouri	5.8	3.0	4.9	6.1	4.5	2.8	3.4	0.3
Nebraska	2.3	5.3	8.3	6.8	8.1	8.2	6.0	4.6
North Dakota	1.2	4.3	4.0	1.3	0.7	0.7	0.7	0.3
Ohio	1.8	3.1	4.6	3.6	5.0	4.6	5.4	0.5
South Dakota	2.0	3.0	3.7	2.8	—	—	0.4	—
Wisconsin	3.6	4.6	3.8	2.0	2.9	2.3	—	0.1
South	**1.3**	**1.3**	**1.0**	**1.4**	**1.1**	**1.1**	**0.8**	**0.2**
Alabama	2.4	2.4	3.6	1.5	1.7	1.5	1.6	0.9
Arkansas	3.9	3.7	4.2	4.7	5.1	4.5	2.8	1.2
Delaware	—	—	—	—	—	—	—	—
District of Columbia	—	—	—	—	—	—	—	—
Florida	3.6	3.5	3.0	3.9	3.3	3.1	*0.0	*0.0
Georgia	4.5	3.8	3.7	4.8	3.8	3.2	0.3	*0.0
Kentucky	1.9	1.3	3.6	2.0	3.7	4.6	3.7	—
Louisiana	3.1	2.7	2.9	2.9	1.3	0.3	2.5	—
Maryland	—	—	—	—	—	—	—	—
Mississippi	1.7	2.2	2.3	2.9	3.6	3.6	—	1.8
North Carolina	3.7	3.3	3.3	3.4	3.4	3.4	1.6	
Oklahoma	2.8	2.7	2.6	3.0	2.4	2.3	2.0	0.5
South Carolina	2.2	2.7	2.9	4.6	3.6	4.3	2.0	1.3
Tennessee	1.4	4.3	5.4	4.5	4.9	4.9	6.4	0.8
Texas	3.8	2.9	2.5	3.8	2.3	3.0	2.1	0.2
Virginia	5.6	5.4	4.3	7.2	4.8	4.5	7.5	2.2
West Virginia	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1

Table S22-2 Standard errors for table 22-2—Continued

State	Requirements in teacher hiring: Full standard state certification for field to be taught	Graduation from state-approved teacher education program	Emergency or temporary state certification	College major or minor in field to be taught	Passage of state test of basic skills	Passage of state test of subject knowledge	Passage of the National Teachers Examination (NTE)	Passage of district test of basic skills or subject knowledge
West	**2.7**	**4.1**	**2.9**	**3.5**	**3.5**	**3.4**	**2.7**	**0.5**
Alaska	3.6	3.4	4.9	3.9	—	—	—	—
Arizona	2.9	10.7	9.1	7.9	4.5	9.3	2.9	*0.0
California	4.6	9.7	5.7	8.8	7.9	8.2	6.3	0.7
Colorado	5.1	7.1	7.8	5.4	4.4	7.5	0.7	—
Hawaii	—	—	—	—	—	—	—	—
Idaho	1.9	3.1	4.4	4.0	3.5	3.1	3.2	—
Montana	4.9	4.8	5.4	4.9	4.7	3.6	5.5	2.1
Nevada	—	—	—	—	—	—	—	—
New Mexico	4.9	3.5	5.0	4.9	5.8	4.8	6.9	2.4
Oregon	6.2	5.6	6.1	6.1	6.4	3.0	2.8	—
Utah	3.2	4.0	2.1	3.3	—	—	—	—
Washington	11.7	10.6	10.1	9.8	10.3	10.6	*0.0	1.0
Wyoming	1.1	2.9	2.6	2.4	1.0	0.2	—	—

— Not applicable.

* Standard errors less than 0.05 rounded to 0.0.

SOURCE: U.S. Department of Education, National Center for Education Statistics. Schools and Staffing Survey, 1993–94 (Teacher Demand and Shortage Questionnaire for Public School Districts).

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Table S23 Standard errors for the text table in *Indicator 23*

	How well prepared teachers felt				Very well prepared		
					Hours of professional development		
Activity	Very well prepared	Moderately well prepared	Somewhat well prepared	Not at all prepared	0 hours	1–8 hours	More than 8 hours
Maintain order and discipline in the classroom	0.7	0.7	0.3	0.2	1.2	1.4	2.8
Implement new methods of teaching (e.g., cooperative learning)	0.8	0.8	0.7	0.3	1.7	1.3	1.7
Implement state or district curriculum and performance standards	0.9	1.1	1.0	0.3	2.2	1.2	1.9
Use student performance assessment techniques (e.g., methods of testing, applying results to modify instruction)	1.0	0.9	0.8	0.4	1.2	1.1	2.3
Address the needs of students with disabilities	0.8	1.1	1.0	0.6	1.0	1.4	3.6
Integrate educational technology in the grade or subject taught	0.8	1.0	1.0	0.5	1.1	0.8	1.9
Address the needs of students with limited English proficiency or from diverse cultural backgrounds	1.1	1.4	1.0	0.9	1.1	1.8	3.5

SOURCE: U.S. Department of Education, National Center for Education Statistics, Fast Response Survey System, Teacher Survey on Professional Development and Training, 1998.

Table S24 Standard errors for the text table in *Indicator 24*

		Frequency of participation			
Activity	Total	A few times a year	Once a month	2 to 3 times a month	At least once a week
Common planning period for team teachers	1.5	2.5	3.8	3.5	1.7
Being mentored by another teacher in a formal relationship	1.8	2.1	4.3	4.5	4.0
Individual or collaborative research on topic of interest professionally	1.2	1.7	3.3	2.4	2.6
Regularly scheduled collaboration with other teachers	0.9	1.8	1.9	2.1	1.8
Networking with teachers outside your school	1.2	1.1	2.8	3.6	3.7
Mentoring another teacher in a formal relationship	1.6	2.1	4.6	3.5	2.6

SOURCE: U.S. Department of Education, National Center for Education Statistics, Fast Response Survey System, Teacher Survey on Professional Development and Training, 1998.

Table S24-1 Standard errors for table 24-1

Activity	Never	A few times a year	Once a month	2 to 3 times a month	At least once a week
Common planning period for team teachers	0.9	0.6	0.5	0.6	0.9
Being mentored by another teacher in a formal relationship	0.6	0.5	0.2	0.3	0.4
Individual or collaborative research on topic of interest professionally	0.9	0.8	0.6	0.6	0.5
Regularly scheduled collaboration with other teachers	0.9	0.9	0.8	0.7	0.9
Networking with teachers outside your school	0.9	1.0	0.5	0.5	0.4
Mentoring another teacher in a formal relationship	0.8	0.5	0.3	0.5	0.6

SOURCE: U.S. Department of Education, National Center for Education Statistics, Fast Response Survey System, Teacher Survey on Professional Development and Training, 1998.

Table S25 Standard errors for the text table in *Indicator 25*

	All elementary and secondary school teachers			Median annual salaries in constant 1998 dollars				
	Age				Age			
	Less than 35	35–44	45 or older	Total	Less than 35	35–44	45 or older	Bachelor's degee recipients
1971	2.4	1.4	2.2	$398	$406	$1,107	$773	$467
1973	2.1	1.4	1.9	463	441	1,344	778	459
1975	2.2	1.5	1.7	426	423	952	779	380
1977	2.5	1.9	1.9	363	460	1,038	1,001	492
1979	2.4	1.8	1.9	456	332	873	593	368
1981	2.4	2.1	2.1	323	513	719	658	394
1983	2.4	2.3	2.2	452	473	599	558	283
1985	2.2	2.4	2.3	364	594	883	797	471
1987	2.2	2.6	2.3	593	382	577	540	297
1989	2.3	2.8	2.7	419	464	641	622	498
1991	2.4	3.1	3.0	612	783	773	1,252	245
1993	1.9	2.4	2.6	425	517	603	486	338
1995	2.0	2.4	2.8	677	559	697	620	261
1997	2.7	2.6	3.3	345	434	574	1,111	229
1998	2.3	2.2	2.9	574	733	1,179	639	284

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

Table S26 Standard errors for the text table in *Indicator 26*

Year	Had something stolen	Property deliberately damaged	Injured with a weapon	Threatened with a weapon	Injured without a weapon	Threatened without a weapon
1976	1.1	1.1	0.5	0.8	0.9	0.9
1977	1.1	1.1	0.5	0.7	0.7	0.9
1978	1.0	0.9	0.5	0.7	0.7	0.9
1979	1.0	0.9	0.5	0.7	0.7	0.9
1980	1.0	0.9	0.5	0.7	0.7	0.9
1981	1.0	1.0	0.5	0.8	0.8	0.9
1982	1.0	1.0	0.5	0.7	0.7	0.9
1983	1.0	1.0	0.5	0.8	0.8	0.9
1984	1.0	0.9	0.5	0.7	0.7	0.9
1985	1.0	1.0	0.5	0.8	0.8	0.9
1986	1.2	1.1	0.5	0.9	0.9	0.9
1987	1.1	1.0	0.5	0.7	0.8	0.9
1988	1.1	1.0	0.5	0.8	0.8	0.9
1989	1.1	1.0	0.5	0.8	0.8	0.9
1990	1.3	1.2	0.5	0.9	0.9	1.1
1991	1.3	1.2	0.6	0.9	0.9	1.1
1992	1.3	1.3	0.6	1.0	1.0	1.1
1993	1.3	1.2	0.6	0.9	0.8	1.0
1994	1.3	1.2	0.6	1.0	0.9	1.2
1995	1.3	1.2	0.6	0.9	0.9	1.2
1996	1.4	1.2	0.6	0.9	0.9	1.2
1997	1.3	1.2	0.6	0.8	0.9	1.1

NOTE: The methodology for computing standard errors for 1994–97 differs from that of previous years.

SOURCE: University of Michigan, Survey Research Center, Institute for Social Research, Monitoring the Future Study.

Table S26-1 Standard errors for table 26-1

Year	Had something stolen		Property deliberately damaged		Injured with a weapon		Threatened with a weapon		Injured without a weapon		Threatened without a weapon	
	White	Black	White	Black	White	Black	White	Black	White	Black	White	Black
1976	1.2	3.3	1.1	3.3	0.6	2.2	0.8	2.6	0.9	2.6	1.0	2.9
1977	1.2	2.9	1.1	2.5	0.6	1.9	0.8	2.5	0.8	1.9	1.0	2.5
1978	1.1	2.9	1.1	2.5	0.4	1.4	0.7	2.2	0.7	2.2	0.9	2.4
1979	1.2	3.3	1.0	2.9	0.5	2.2	0.8	2.6	0.8	2.2	1.0	2.9
1980	1.2	2.9	1.2	2.5	0.5	1.9	0.8	2.5	0.8	2.2	1.0	2.5
1981	1.2	2.6	1.1	2.6	0.5	2.0	0.9	2.3	0.9	2.3	0.9	2.4
1982	1.1	2.9	1.1	3.1	0.5	1.4	0.9	2.2	0.9	1.9	0.9	2.5
1983	1.2	2.9	1.1	2.9	0.6	1.4	0.8	2.2	0.9	2.2	0.9	2.5
1984	1.2	2.9	1.0	2.9	0.5	1.4	0.8	2.2	0.8	2.2	1.0	2.5
1985	1.2	2.9	1.2	2.9	0.6	1.9	0.8	2.5	0.9	2.5	1.0	2.9
1986	1.3	3.3	1.2	2.9	0.6	1.6	0.9	2.6	0.9	2.6	1.1	2.9
1987	1.3	3.3	1.2	3.1	0.6	1.6	0.9	2.7	0.9	2.6	1.1	2.9
1988	1.3	3.1	1.2	2.9	0.6	1.9	0.9	2.5	0.9	2.2	1.0	2.9
1989	1.3	3.6	1.3	3.3	0.6	2.2	0.8	2.9	1.0	2.9	1.1	2.9
1990	1.4	3.6	1.3	3.3	0.6	2.2	0.8	2.9	1.0	2.2	1.1	2.9
1991	1.4	3.6	1.3	2.9	0.6	2.2	1.0	2.9	1.0	2.6	1.3	3.3
1992	1.4	3.6	1.4	3.3	0.7	1.6	0.9	2.9	1.1	2.6	1.4	2.9
1993	1.6	3.6	1.4	3.3	0.7	1.6	1.1	2.9	0.9	2.2	1.3	2.9
1994	1.5	4.4	1.4	3.6	0.6	2.4	1.1	3.4	1.0	2.8	1.4	3.6
1995	1.5	4.1	1.4	3.7	0.6	2.4	1.0	3.3	1.0	2.4	1.4	3.5
1996	1.6	4.1	1.4	3.7	0.6	2.5	1.1	3.1	1.0	3.0	1.3	3.4
1997	1.6	3.6	1.4	3.2	0.7	1.9	1.0	2.5	1.1	2.3	1.4	2.9

NOTE: The methodology for computing standard errors for 1994–97 differs from that of previous years.

SOURCE: University of Michigan, Survey Research Center, Institute for Social Research, Monitoring the Future Study.

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Table S26-2 Standard errors for table 26-2

Year	Had something stolen	Property deliberately damaged	Injured with a weapon	Threatened with a weapon	Injured without a weapon	Threatened without a weapon
			Large metropolitan statistical area			
1994	2.1	1.9	0.9	1.5	1.5	1.8
1995	2.2	1.9	0.9	1.5	1.4	1.9
1996	2.7	2.5	1.3	2.0	1.8	2.3
1997	2.1	1.9	0.9	1.3	1.4	1.8
			Other metropolitan statistical area			
1994	1.9	1.7	0.9	1.4	1.2	1.7
1995	1.9	1.7	0.9	1.3	1.3	1.6
1996	1.8	1.6	0.7	1.2	1.2	1.5
1997	1.8	1.6	0.8	1.2	1.2	1.6
			Nonmetropolitan statistical area			
1994	2.7	2.5	1.1	2.0	1.7	2.3
1995	2.7	2.5	1.2	1.9	1.7	2.4
1996	2.3	2.1	1.1	1.7	1.5	2.0
1997	2.6	2.3	1.2	1.5	1.8	2.1

NOTE: Standard errors for 1994–96 are revised from previously published figures.

SOURCE: University of Michigan, Survey Research Center, Institute for Social Research, Monitoring the Future Study.

Table S27 Standard errors for the text table in *Indicator 27*

Type of drug	1976	1978	1980	1982	1984	1986	1988	1990	1991	1992	1993	1994	1995	1996	1997	1998
Alcohol	0.3	0.2	0.3	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Marijuana	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2
Stimulants	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
LSD	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2
Cocaine	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Tranquilizers	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1

SOURCE: University of Michigan, Survey Research Center, Institute for Social Research, Monitoring the Future Study.

Table S27-1 Standard errors for table 27-1

Type of drug	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986
Alcohol	0.4	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Marijuana	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Any illicit drug other than marijuana	0.5	0.4	0.3	0.3	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4
Stimulants	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
LSD	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Cocaine	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.3	0.3	0.3
Sedatives	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Tranquilizers	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Inhalants	—	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2

Type of drug	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Alcohol	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.3	0.4
Marijuana	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4
Any illicit drug other than marijuana	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Stimulants	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
LSD	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Cocaine	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2
Sedatives	0.2	0.1	0.1	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2
Tranquilizers	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2
Inhalants	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2

— Not available

SOURCE: University of Michigan, Survey Research Center, Institute for Social Research, Monitoring the Future Study.

Table S27-2 Standard errors for table 27-2

Type of drug and grade	1991	1992	1993	1994	1995	1996	1997	1998
Alcohol								
8th-graders	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
10th-graders	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
12th-graders	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.1
Marijuana/hashish								
8th-graders	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2
10th-graders	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3
12th-graders	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.1
Any illicit drug other than marijuana								
8th-graders	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2
10th-graders	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
12th-graders	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1
Stimulants								
8th-graders	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1
10th-graders	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2
12th-graders	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1
LSD								
8th-graders	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
10th-graders	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
12th-graders	0.1	0.1	0.1	0.1	0.2	0.1	0.1	*0.0
Cocaine								
8th-graders	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
10th-graders	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
12th-graders	0.1	0.1	0.1	0.1	0.1	0.1	0.1	*0.0
Tranquilizers								
8th-graders	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
10th-graders	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
12th-graders	0.1	0.1	0.1	0.1	0.1	0.1	0.1	*0.0
Cigarettes								
8th-graders	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
10th-graders	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4
12th-graders	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.1
Inhalants								
8th-graders	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
10th-graders	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
12th-graders	0.1	0.1	0.1	0.1	0.1	0.1	0.1	*0.0

* Standard errors less than 0.05 are rounded to 0.0.

SOURCE: University of Michigan, Survey Research Center, Institute for Social Research, Monitoring the Future Study.

Table S27-3 Standard errors for table 27-3

Type of drug and grade	1992	1993	1994	1995	1996	1997	1998
Alcohol							
8th-graders	0.5	0.3	0.3	0.3	0.3	0.3	0.3
10th-graders	0.5	0.4	0.4	0.4	0.4	0.4	0.4
12th-graders	—	—	—	—	—	—	—
Marijuana							
8th-graders	0.5	0.4	0.4	0.4	0.4	0.4	0.4
10th-graders	0.6	0.4	0.4	0.3	0.3	0.3	0.3
12th-graders	0.7	0.7	0.7	0.6	0.7	0.6	0.6
Heroin							
8th-graders	0.4	0.3	0.3	0.3	0.3	0.3	0.3
10th-graders	0.5	0.4	0.3	0.3	0.4	0.4	0.4
12th-graders	0.9	0.9	0.9	0.9	1.0	0.9	1.0
LSD							
8th-graders	0.4	0.3	0.3	0.3	0.3	0.3	0.3
10th-graders	0.6	0.4	0.4	0.4	0.4	0.4	0.4
12th-graders	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Cocaine							
8th-graders	0.5	0.3	0.3	0.4	0.3	0.3	0.3
10th-graders	0.6	0.4	0.4	0.4	0.4	0.4	0.4
12th-graders	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Tranquilizers							
8th-graders	0.5	0.3	0.3	0.3	0.3	0.3	0.3
10th-graders	0.6	0.4	0.4	0.4	0.4	0.4	0.4
12th-graders	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Cigarettes							
8th-graders	0.5	0.3	0.3	0.3	0.3	0.3	0.3
10th-graders	0.4	0.3	0.2	0.2	0.2	0.3	0.3
12th-graders	—	—	—	—	—	—	—

— Not available.

SOURCE: University of Michigan, Survey Research Center, Institute for Social Research, Monitoring the Future Study.

Table S28(a) Standard errors for the first text table in *Indicator 28*

School level	Total				Low income				Middle income				High income			
	1979	1991	1994	1997	1979	1991	1994	1997	1979	1991	1994	1997	1979	1991	1994	1997
Preschool	1.7	1.5	1.2	1.2	4.6	3.1	2.3	2.3	2.3	2.1	1.6	1.6	2.7	2.2	1.9	2.1
Kindergarten	1.0	0.9	0.9	1.0	1.3	1.1	1.2	1.6	1.2	1.2	1.1	1.2	2.7	2.5	2.3	2.2
Elementary	0.3	0.3	0.3	0.3	0.5	0.4	0.4	0.4	0.3	0.4	0.3	0.3	0.7	0.8	0.7	1.8
Secondary	0.3	0.4	0.3	0.3	0.6	0.6	0.6	0.6	0.4	0.4	0.4	0.4	0.7	0.9	0.8	1.6

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Table S28(b) Standard errors for the second text table in *Indicator 28*

School level and type	1979			1991			1994			1997		
	25th	50th	75th	25th	50th	75th	25th	50th	75th	25th	50th	75th
Preschool	$25	$27	$168	$23	$59	$170	$27	$42	$104	$30	$83	$160
K-12	25	41	76	33	40	100	36	41	40	44	72	74
Kindergarten	52	79	236	79	163	327	82	131	394	84	70	369
Elementary	25	27	54	35	42	56	39	41	80	48	75	466
Secondary	38	38	72	73	132	414	104	59	91	89	175	61

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Table S28-1 Standard errors for table 28-1

	Family income								
	1979			1982			1985		
School level and type	Low	Middle	High	Low	Middle	High	Low	Middle	High
Preschool									
All public	2.6	3.0	2.3	2.7	3.0	2.2	2.4	2.7	1.9
All private	1.0	2.2	2.2	0.8	2.1	2.1	0.8	2.0	2.0
Church-related	1.8	3.6	3.6	1.5	3.4	3.3	1.2	3.3	3.2
Nonchurch-related	1.1	2.8	2.7	0.9	2.8	2.7	1.0	2.6	2.6
Kindergarten									
All public	1.1	1.4	1.2	1.2	1.5	1.2	1.2	1.4	1.1
All private	1.4	3.6	3.6	1.6	3.5	3.4	1.5	3.3	3.2
Church-related	1.5	4.4	4.3	1.8	4.0	3.8	1.9	4.0	3.8
Nonchurch-related	2.8	6.4	6.2	3.3	7.1	6.9	2.5	6.3	6.1
Elementary									
All public	0.3	0.5	0.4	0.4	0.5	0.4	0.4	0.5	0.4
All private	0.6	1.4	1.4	0.7	1.5	1.4	0.7	1.5	1.5
Church-related	0.6	1.5	1.5	0.8	1.6	1.5	0.8	1.6	1.6
Nonchurch-related	1.5	3.7	3.8	1.3	4.3	4.3	1.9	4.1	4.1
Secondary									
All public	0.4	0.6	0.6	0.5	0.7	0.6	0.5	0.7	0.7
All private	0.8	2.4	2.4	0.9	2.5	2.5	1.0	2.4	2.4
Church-related	0.9	2.6	2.6	1.0	2.8	2.8	1.1	2.6	2.6
Nonchurch-related	2.1	5.2	5.3	1.8	5.6	5.6	2.7	5.5	5.7

	Family income								
	1991			1994			1997		
School level and type	Low	Middle	High	Low	Middle	High	Low	Middle	High
Preschool									
All public	2.4	2.6	1.8	1.6	1.8	1.2	1.6	1.7	1.2
All private	0.8	2.0	2.0	0.8	1.7	1.6	0.9	1.7	1.7
Church-related	1.0	3.0	3.0	1.0	2.5	2.5	1.2	2.5	2.5
Nonchurch-related	1.2	2.8	2.7	1.1	2.2	2.2	1.2	2.4	2.3
Kindergarten									
All public	1.2	1.4	1.1	1.1	1.4	1.1	1.2	1.4	1.1
All private	1.6	3.5	3.5	1.8	3.4	3.3	1.7	3.2	3.1
Church-related	2.1	4.2	4.1	2.2	4.0	3.8	2.1	3.8	3.7
Nonchurch-related	2.4	6.4	6.4	3.4	6.4	6.4	2.8	5.7	5.6
Elementary									
All public	0.4	0.5	0.4	0.4	0.5	0.4	0.4	0.5	0.4
All private	0.7	1.6	1.6	0.6	1.4	1.4	0.6	1.5	1.5
Church-related	0.8	1.8	1.7	0.7	1.6	1.5	0.7	1.7	1.7
Nonchurch-related	1.4	3.8	3.8	1.3	3.0	3.0	1.5	3.2	3.2
Secondary									
All public	0.6	0.8	0.7	0.5	0.7	0.6	0.5	0.7	0.6
All private	1.2	2.9	2.9	1.1	2.5	2.5	1.1	2.4	2.4
Church-related	1.2	3.3	3.3	1.3	2.9	2.9	1.2	2.8	2.8
Nonchurch-related	2.9	5.5	5.7	2.3	5.0	5.0	2.6	4.8	4.9

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Table S29(a) Standard errors for the first text table in *Indicator 29*

		1995						
			Public		Private		Minority enrollment	
Subject	Fall 1989	Total	2-year	4-year	2-year	4-year	High	Low
Reading, writing, or mathematics	1.4	0.8	1.4	1.2	5.4	1.6	2.0	0.8
Reading	0.7	0.5	1.0	0.8	2.5	1.2	1.7	0.6
Writing	0.8	0.6	1.0	0.9	5.3	1.3	1.7	0.6
Mathematics	1.0	0.8	1.3	1.1	4.8	1.4	2.0	0.8

SOURCE: U.S. Department of Education, National Center for Education Statistics, Postsecondary Education Quick Information System, *Remedial Education at Higher Education Institutions in Fall 1995*, 1996.

Table S29(b) Standard errors for the second text table in *Indicator 29*

		1995						
			Public		Private		Minority enrollment	
Subject	Fall 1989	Total	2-year	4-year	2-year	4-year	High	Low
Reading, writing, or mathematics	2.1	1.7	—	2.6	6.8	3.9	2.0	1.9
Reading	2.3	1.6	0.7	3.1	5.5	2.7	3.1	1.7
Writing	2.2	1.6	0.5	2.7	6.8	4.2	3.4	1.8
Mathematics	2.2	1.6	0.5	2.7	7.0	3.5	2.1	1.7

— Not applicable.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Postsecondary Education Quick Information System, *Remedial Education at Higher Education Institutions in Fall 1995*, 1996.

Table S30 Standard errors for the text table in *Indicator 30*

Instructional method	Total	Program area Agriculture/ home economics	Business	Education	Engineering	Fine arts	Health sciences	Humanities	Natural sciences	Social sciences	Other
Teaching tools											
Computational tools/software	0.6	4.2	1.7	1.9	2.3	1.5	1.8	0.9	1.2	1.3	1.5
Computer-aided instruction	0.5	4.3	1.5	1.8	2.5	1.6	1.8	1.1	1.2	1.1	1.4
Grading											
Grading on a curve	0.5	4.8	1.8	1.3	3.0	1.6	1.9	0.9	1.2	1.4	1.5
Competency-based grading	0.5	3.7	1.6	1.8	2.5	1.7	1.8	1.1	1.1	1.6	1.7
Assignments											
Multiple drafts of written work	0.5	3.7	1.4	1.8	1.7	1.5	1.6	1.0	0.9	1.3	1.6
Student presentations	0.6	4.6	1.6	1.6	2.9	1.5	1.8	0.9	1.1	1.5	1.4
Student evaluations	0.6	3.9	1.5	1.9	2.2	1.9	1.7	1.0	0.9	1.4	1.5
Term/research papers	0.6	3.6	1.6	1.8	2.6	2.0	1.8	1.1	1.0	1.4	1.6
Midterms/finals											
Multiple choice	0.6	3.9	1.5	1.8	2.8	1.9	1.5	1.1	1.2	1.7	1.6
Short answer	0.5	3.4	1.8	1.7	2.9	2.0	1.8	1.1	1.2	1.5	1.6
Essay	0.6	4.9	1.7	1.8	2.7	2.1	1.6	0.9	1.2	1.4	1.6

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Study of Postsecondary Faculty, 1993.

Table S31 Standard errors for the text table in *Indicator 31*

Selected institutional characteristics	Currently offering distance education courses	Not currently offering distance education courses	
		Planning to offer distance education courses in the next 3 years	Not planning to offer distance education courses in the next 3 years
All institutions	**1.0**	**1.6**	**1.6**
Institution type			
Private 2-year	1.0	3.2	3.3
Private 4-year	1.2	2.6	2.9
Public 2-year	1.9	2.1	1.7
Public 4-year	2.0	2.2	2.2
Region			
Northeast	1.8	2.6	3.0
Southeast	2.2	3.6	3.2
Central	2.3	3.2	3.6
West	3.0	3.0	3.9
Size of institution (enrollment)			
Less than 3,000	1.2	2.3	2.2
3,000 to 9,999	2.0	1.8	1.2
10,000 or more*	0.0	0.0	0.0

* The estimated standard error is zero for the institutions with 10,000 or more students because all institutions of this size were surveyed.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Postsecondary Education Quick Information System, *Distance Education in Higher Education Institutions*, 1997.

Table S31-1 Standard errors for table 31-1

Selected institutional characteristics	Number of students	Percentage distribution
All institutions	**30,045.7**	—
Institution type		
Private 4-year	13,079.0	1.6
Public 2-year	23,587.1	2.0
Public 4-year	13,559.1	1.8
Region		
Northeast	6,624.8	0.9
Southeast	11,420.5	1.6
Central	25,212.8	2.6
West	11,706.7	1.6
Size of institution (enrollment)		
Less than 3,000	21,339.5	2.5
3,000 to 9,999	22,337.5	2.3
10,000 or more	* 0.0	2.2

— Not applicable.

The estimated standard error is zero for the institutions with 10,000 or more students because all institutions of this size were surveyed.

NOTE: Standard errors are computed on rounded numbers.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Postsecondary Education Quick Information System, *Distance Education in Higher Education Institutions*, 1997.

Table S31-2 Standard errors for table 31-2

Selected institutional characteristics	Percentage of institutions offering		Total number of degrees or certificates offered		Total number of recipients	
	Degrees	Certificates	Degrees	Certificates	Degrees	Certificates
All institutions	**1.7**	**1.0**	**70.3**	**17.8**	**478.7**	**120.3**
Institution type						
Private 4-year	6.3	5.9	48.7	11.4	232.2	85.4
Public 2-year	2.2	0.9	37.9	5.0	68.0	23.4
Public 4-year	2.2	1.1	21.0	12.1	416.2	83.0
Region						
Northeast	2.1	1.4	6.1	6.0	1.2	([1])
Southeast	2.7	1.5	15.3	4.6	190.1	87.4
Central	4.5	2.8	67.1	11.6	164.9	7.7
West	2.0	1.5	20.8	11.6	420.8	82.7
Size of institution (enrollment)						
Less than 3,000	4.8	2.9	63.9	15.3	436.1	82.7
3,000 to 9,999	1.9	1.0	30.0	7.2	197.6	87.3
10,000 or more[2]	0.0	0.0	0.0	0.0	0.0	0.0

[1] Standard error less than 0.05 rounded to 0.0.

[2] The estimated standard error is zero for the institutions with 10,000 or more students because all institutions of this size were surveyed.

NOTE: Standard errors are computed on rounded numbers.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Postsecondary Education Quick Information System, *Distance Education in Higher Education Institutions*, 1997.

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Table S31-3 Standard errors for table 31-3

Delivery technology	Currently use the technology	Percentage planning to start or increase use of technology: Institutions currently offering distance education courses	Percentage planning to start or increase use of technology: Institutions that plan to start offering distance education courses
Two-way interactive video	1.5	1.6	2.5
Two-way audio, one-way video	1.3	1.6	2.8
One-way live video	0.9	1.7	3.6
One-way prerecorded video	1.6	1.9	2.4
Audiographics	0.4	0.9	1.5
Two-way audio (e.g., audio/phone conferencing)	1.3	1.5	2.4
One-way audio (e.g., radio, audiotapes)	1.7	1.3	2.6
Two-way online (computer-based) interactions during instruction	1.3	1.8	3.0
Other computer-based technology (e.g., Internet)	2.0	1.6	2.5

SOURCE: U.S. Department of Education, National Center for Education Statistics, Postsecondary Education Quick Information System, *Distance Education in Higher Education Institutions*, 1997.

Table S32 Standard errors for the text table in *Indicator 32*

Sex and academic rank	Total	Control of institution		Type of institution					
		Public	Private	Research	Doctoral	Compre-hensive	Liberal arts	2-year	Other
Total	**0.9**	**1.1**	**1.9**	**2.5**	**2.4**	**2.0**	**2.8**	**1.3**	**3.4**
Sex									
Male	1.1	1.3	2.0	2.1	2.4	2.2	3.5	1.6	3.9
Female	0.9	1.1	1.9	3.7	3.0	1.9	2.3	1.3	3.4
Academic rank									
Full professor	1.2	1.1	2.5	2.1	3.0	2.5	3.1	2.7	4.6
Associate professor	1.7	2.0	2.9	3.9	2.3	1.2	1.7	3.1	8.7
Assistant professor	1.5	1.3	3.1	3.3	2.6	1.8	3.6	3.9	6.7
Instructor	1.0	1.2	2.0	5.4	3.4	1.9	3.3	1.4	5.2
Lecturer	2.3	2.7	4.2	5.9	6.3	2.3	6.4	1.8	8.7
Average number of classes taught *									
Total	*0.0	*0.0	*0.0	0.1	*0.0	*0.0	0.1	*0.0	0.1
Undergraduate	*0.0	*0.0	*0.0	0.1	*0.0	*0.0	0.1	*0.0	0.2
Graduate	*0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1

* Standard errors less than 0.05 are rounded to 0.0.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Study of Postsecondary Faculty, 1993.

Table S33 Standard errors for the text table in *Indicator 33*

Activity	Total	Academic rank					Type of institution				
		Full professor	Associate professor	Assistant professor	Instructor	Lecturer	Research	Doctor's	Comprehensive	Liberal arts	2-year
Fall 1987											
Teaching activities	0.8	1.2	1.0	1.1	1.7	2.3	1.3	1.5	1.5	1.1	1.0
Research/scholarship	0.6	1.1	0.8	0.9	0.9	1.3	1.2	1.2	0.5	1.2	0.3
Professional growth	0.2	0.3	0.4	0.2	0.6	1.0	0.4	0.4	0.2	0.4	0.3
Administration	0.3	0.6	0.5	0.4	1.1	1.2	0.5	0.8	0.7	0.9	0.7
Outside consulting/ freelance work	0.1	0.2	0.2	0.2	0.5	1.0	0.2	0.5	0.2	0.3	0.3
Service and other	0.4	0.5	0.6	0.9	0.6	1.3	0.7	0.5	0.6	0.3	0.4
Fall 1992											
Teaching activities	0.5	0.7	0.8	0.7	1.0	2.4	0.8	1.2	0.6	0.8	0.8
Research/scholarship	0.4	0.6	0.6	0.7	0.3	1.5	0.9	0.8	0.4	0.7	0.2
Professional growth	0.1	0.1	0.1	0.1	0.2	0.6	0.2	0.2	0.1	0.2	0.2
Administration	0.2	0.4	0.5	0.3	0.6	1.5	0.5	0.6	0.4	0.7	0.7
Outside consulting/ freelance work	0.1	0.1	0.2	0.1	0.2	0.4	0.2	0.2	0.1	0.2	0.2
Service and other	0.2	0.2	0.3	0.5	0.6	2.4	0.6	0.7	0.2	0.4	0.3

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Study of Postsecondary Faculty, 1988 and 1993.

Table S33-1 Standard errors for table 33-1

Characteristics	Mean classroom hours per week	Mean student contact hours per week	Average class size
		Fall 1987	
Total	**0.2**	**7.6**	**0.6**
Academic rank			
Full professor	0.3	12.4	1.1
Associate professor	0.2	19.5	1.3
Assistant professor	0.3	11.9	0.8
Instructor	0.5	24.2	1.1
Lecturer	0.6	62.1	4.9
Type of institution			
Research	0.2	14.4	1.8
Doctor's	0.3	19.6	2.3
Comprehensive	0.3	10.8	1.0
Liberal arts	0.6	18.3	0.9
2-year	0.3	18.6	0.7
Control of institution			
Public	0.2	8.4	0.6
Private	0.3	15.3	1.3
Academic discipline of class taught			
Agriculture	0.8	22.0	2.7
Business	0.3	13.3	1.0
Education	0.4	19.9	0.9
Engineering	0.4	15.1	1.3
Fine arts	0.5	17.4	0.9
Humanities	0.2	10.3	0.5
Natural sciences	0.3	23.4	1.7
Social sciences	0.3	17.0	1.8
		Fall 1992	
Total	**0.1**	**7.2**	**0.4**
Academic rank			
Full professor	0.2	12.8	0.8
Associate professor	0.2	10.2	0.7
Assistant professor	0.2	9.8	0.6
Instructor	0.4	19.9	0.5
Lecturer	0.5	30.1	3.8
Type of institution			
Research	0.2	13.6	1.2
Doctor's	0.3	34.6	2.2
Comprehensive	0.2	6.6	0.5
Liberal arts	0.3	9.3	0.5
2-year	0.3	13.5	0.4
Control of institution			
Public	0.2	7.0	0.4
Private	0.3	18.3	1.1
Academic discipline of class taught			
Agriculture	0.9	36.9	2.2
Business	0.3	9.6	0.7
Education	0.3	17.7	0.9
Engineering	0.5	14.2	1.0
Fine arts	0.4	10.1	0.7
Humanities	0.2	7.8	0.4
Natural sciences	0.3	19.9	1.1
Social sciences	0.2	17.9	0.9

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Study of Postsecondary Faculty, 1988 and 1993.

Table S34 Standard errors for the text table in *Indicator 34*

Selected characteristics	Read to three or more times in the past week				Told a story at least once in the past week				Visited a library in the past month			
	1991	1993	1995	1996	1991	1993	1995	1996	1991	1993	1995	1996
Total	**0.7**	**0.6**	**0.6**	**0.7**	**0.7**	**0.8**	**0.7**	**0.8**	**0.7**	**0.9**	**0.9**	**0.9**
School enrollment status and level												
Not enrolled	1.2	1.0	1.0	1.4	1.1	1.5	1.2	1.3	1.0	1.3	1.4	1.7
Center-based programs	1.0	0.9	1.0	1.2	1.1	0.9	1.0	1.1	1.0	1.2	1.1	1.4
Kindergarten	1.4	1.3	1.2	1.3	1.3	1.4	1.2	1.5	1.6	1.6	1.7	1.7
Race–ethnicity												
White	0.7	0.7	0.6	0.9	0.8	1.0	0.8	0.9	0.9	1.1	1.1	1.3
Black	2.0	1.8	1.9	2.3	2.1	1.9	2.5	2.5	1.8	2.0	2.3	2.3
Hispanic	2.8	2.0	2.0	2.4	2.1	1.8	1.7	2.2	1.8	1.6	1.7	2.0
Other	3.1	3.6	2.7	2.6	3.4	3.1	2.7	2.9	3.3	4.1	3.2	4.1
Parents' highest education level												
Less than high school diploma	2.4	3.2	3.0	3.5	2.4	2.9	2.8	3.7	2.0	2.8	2.2	2.9
High school diploma or GED	1.4	1.5	1.3	1.5	1.5	1.3	1.3	1.5	1.2	1.4	1.7	1.8
Some college/vocational/technical	1.2	1.3	1.2	1.2	1.3	1.4	1.2	1.2	0.8	1.3	1.9	1.7
Bachelor's degree	1.4	1.2	1.3	1.5	1.9	2.2	1.7	1.7	1.9	1.8	2.1	2.3
Graduate/professional school	1.1	1.6	1.2	1.0	1.6	1.4	1.5	2.0	2.3	2.2	2.2	2.7

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), 1991 (Early Childhood Education File), 1993 (School Readiness File), 1995 (Early Childhood Program Participation File), and 1996 (Parent and Family Involvement in Education File).

Table S35(a) Standard errors for the first text table in *Indicator 35*

Family type	Level of involvement		Type of activity			
	High	Low	Volunteered	Attended class event	Attended parent-teacher conference	Attended general school meeting
Fathers in two-parent families	0.5	0.5	0.5	0.5	0.5	0.5
Fathers in single-parent families	2.6	2.2	2.3	2.4	2.7	2.4
Nonresident fathers	0.6	0.9	0.4	1.0	0.8	0.8

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey, 1996 (Parent and Family Involvement in Education and Civic Involvement Components).

Table S35(b) Standard errors for the second text table in *Indicator 35*

Family type and level of fathers' involvement[1]	Child gets mostly A's (Grades 1–12)	Child enjoys school (Grades 1–12)	Child participated in extracurricular activities		Child has repeated a grade (Grades K–12)	Child has ever been expelled/suspended (Grades 6–12)
			Grades K–5	Grades 6–12		
Fathers in two-parent families						
Low involvement	34.1	33.0	73.7	79.3	14.8	17.7
High involvement	50.4	49.8	90.6	94.5	6.7	9.8
Fathers in single-parent families						
Low involvement	16.6	29.8	60.7	68.6	17.9	34.5
High involvement	31.7	43.9	79.1	86.3	13.3	11.4
Nonresident fathers[2]						
Low involvement	29.1	34.7	73.5	75.5	18.1	27.8
High involvement	35.2	44.8	86.6	92.0	7.2	14.4

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey, 1996 (Parent and Family Involvement in Education and Civic Involvement Components).

Table S36 Standard errors for the text table in *Indicator 36*

Selected family characteristics	1972	1977	1982	1987	1992	1997
Mother's highest education level						
Less than high school diploma	0.4	0.4	0.4	0.4	0.4	0.4
High school diploma or GED	0.4	0.5	0.5	0.5	0.5	0.5
Some college	0.3	0.3	0.4	0.4	0.4	0.4
Bachelor's degree or higher	0.2	0.3	0.3	0.4	0.4	0.4
Percentage of children whose mothers were employed	0.4	0.5	0.5	0.5	0.5	0.5
Percentage of children whose fathers were employed	0.2	0.3	0.4	0.4	0.4	0.3
Family type						
Two-parent household	0.4	0.5	0.6	0.6	0.6	0.6
Father as head of household	0.1	0.1	0.2	0.2	0.2	0.3
Mother as head of household	0.4	0.5	0.6	0.6	0.6	0.6
Number of other children in household						
0–1	0.5	0.6	0.7	0.7	0.7	0.7
2–3	0.6	0.6	0.7	0.7	0.7	0.7
4 or more	0.5	0.4	0.4	0.3	0.3	0.3

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

Table S36-1 Standard errors for table 36-1

Selected family characteristics	1972	1977	1982	1987	1992	1997
Race–ethnicity of child						
White	0.5	0.5	0.6	0.6	0.6	0.7
Black	0.4	0.4	0.5	0.5	0.5	0.5
Hispanic	0.3	0.3	0.4	0.4	0.4	0.5
Other	0.1	0.2	0.2	0.3	0.3	0.3
Mother's highest education level						
Less than high school diploma	0.4	0.4	0.4	0.4	0.4	0.4
High school diploma or GED	0.4	0.5	0.5	0.5	0.5	0.5
Some college	0.3	0.3	0.4	0.4	0.4	0.4
Bachelor's degree or higher	0.2	0.3	0.3	0.4	0.4	0.4
Father's highest education level						
Less than high school diploma	0.4	0.5	0.5	0.4	0.4	0.4
High school diploma or GED	0.4	0.5	0.5	0.6	0.5	0.5
Some college	0.3	0.4	0.4	0.5	0.5	0.5
Bachelor's degree or higher	0.3	0.4	0.5	0.5	0.5	0.5
Mother's employment status						
Employed	0.4	0.5	0.5	0.5	0.5	0.5
Unemployed, looking for work	0.1	0.2	0.2	0.2	0.2	0.2
Not in labor force	0.4	0.5	0.5	0.5	0.5	0.5
Father's employment status						
Employed	0.2	0.3	0.4	0.4	0.4	0.3
Unemployed, looking for work	0.2	0.2	0.3	0.3	0.3	0.2
Not in labor force	0.2	0.2	0.2	0.3	0.3	0.3
Family type						
Two-parent household	0.4	0.5	0.6	0.6	0.6	0.6
Father as head of household	0.1	0.1	0.2	0.2	0.2	0.3
Mother as head of household	0.4	0.5	0.6	0.6	0.6	0.6
Number of other children in household						
0–1	0.5	0.6	0.7	0.7	0.7	0.7
2–3	0.6	0.6	0.7	0.7	0.7	0.7
4 or more	0.5	0.4	0.4	0.3	0.3	0.3
Age of mother at child's birth						
Under 20	0.4	0.4	0.5	0.5	0.4	0.4
20–24	0.6	0.6	0.7	0.6	0.6	0.6
25–29	0.5	0.6	0.6	0.7	0.6	0.7
30 or older	0.5	0.6	0.6	0.6	0.6	0.7
Median family income (in constant 1997 dollars)	—	—	—	—	—	—

— Not available.

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

Table S43 Standard errors for the text table in *Indicator 43*

Degree program and type of institution	Any aid	Any grants	Tuition waiver	Any loans	Any assistant-ships	Worked while enrolled	Average hours worked per week
Total	**1.5**	**2.0**	**1.4**	**1.8**	**1.5**	**2.3**	**0.9**
Master's degree	2.2	2.5	1.9	2.2	1.8	3.5	1.2
Public	2.8	3.1	2.9	2.5	2.8	4.5	1.5
Private, not-for-profit	3.8	4.4	2.1	4.1	1.7	5.9	2.1
Doctor's degree	3.0	5.1	3.7	3.1	4.7	6.0	2.2
Public	3.4	5.8	5.1	3.1	4.7	5.3	1.8
Private, not-for-profit	4.6	7.3	4.4	4.6	6.7	11.4	5.8
First-professional degree	1.5	2.9	0.7	2.3	0.8	2.8	1.5
Public	1.9	4.2	1.0	2.4	1.1	3.0	1.7
Private, not-for-profit	2.1	3.8	1.0	3.6	1.0	4.1	2.1

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1995–96, Graduate Data Analysis System.

Table S43-1 Standard errors for table 43-1

Degree program and type of institution	Any aid	Any grants	Tuition waiver	Any loans	Any assistantships	Worked while enrolled	Average hours worked per week
Total	**1.2**	**1.2**	**0.7**	**0.9**	**0.8**	**1.2**	**0.5**
Master's degree	1.4	1.3	0.8	1.0	0.9	1.5	0.6
Public	1.9	1.7	1.3	1.1	1.6	1.9	0.8
Private, not-for-profit	2.2	2.1	1.0	1.9	0.7	2.4	0.9
Doctor's degree	2.5	2.9	2.5	1.9	3.2	3.4	1.7
Public	3.2	3.6	3.2	1.8	3.7	3.4	1.8
Private, not-for-profit	4.1	4.6	3.1	3.1	4.2	7.2	3.0
First-professional degree	1.7	3.1	0.6	2.9	0.7	3.1	1.5
Public	1.9	3.7	1.1	2.4	1.1	3.1	1.6
Private, not-for-profit	2.5	4.6	0.8	4.3	0.8	4.2	1.9

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1995–96, Graduate Data Analysis System.

Table S43-2 Standard errors for table 43-2

Degree program and type of institution	Any Aid	Any grants	Tuition waiver	Any loans	Any assistantships
			All students		
Total	**$306**	**$206**	**$273**	**$259**	**$379**
Master's degree	313	217	268	265	543
Public	338	261	266	222	605
Private, not-for-profit	589	357	659	427	915
Doctor's degree	601	629	358	574	540
Public	628	435	339	444	616
Private, not-for-profit	1237	1292	—	1062	1099
First-professional degree	670	418	649	372	1180
Public	426	687	709	420	1399
Private, not-for-profit	1215	516	1194	673	1818
			Full-time, full-year students		
Total	**$400**	**$374**	**$451**	**$291**	**$398**
Master's degree	487	436	429	365	453
Public	446	550	334	345	473
Private, not-for-profit	1,072	709	—	550	—
Doctor's degree	874	912	520	566	684
Public	898	652	391	521	742
Private, not-for-profit	1,759	1,800	—	937	1,416
First-professional degree	490	491	753	404	1,327
Public	438	769	978	447	—
Private, not-for-profit	941	623	—	761	—

— Not available.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1995–96, Graduate Data Analysis System.

Table S44 Standard errors for the text table in *Indicator 44*

Selected student characteristics	3-year-olds 1991	1993	1995	1996	4-year-olds 1991	1993	1995	1996	5-year-olds 1991	1993	1995	1996
Total	**1.4**	**1.2**	**1.5**	**1.4**	**1.0**	**1.1**	**1.5**	**1.4**	**0.8**	**0.8**	**0.7**	**0.9**
Race-ethnicity												
White	1.5	1.5	2.4	2.1	1.2	1.5	1.9	1.8	0.8	0.9	0.8	1.1
Black	4.2	3.1	4.1	4.3	3.6	3.0	4.5	3.2	1.6	1.9	1.9	1.6
Hispanic	3.2	3.3	2.5	3.4	3.8	3.3	3.0	3.9	2.3	2.2	1.6	3.2
Other	6.3	6.0	7.1	7.0	5.8	5.4	5.6	7.8	5.7	3.9	1.6	2.5
Household income												
$10,000 or less	—	3.8	3.8	3.7	—	2.6	4.8	4.7	—	2.2	1.7	3.6
10,001–20,000	—	3.5	3.5	4.7	—	2.7	4.4	4.3	—	2.2	2.1	2.9
20,001–35,000	—	2.2	2.7	3.3	—	2.2	2.8	2.7	—	1.9	1.4	1.9
35,001–50,000	—	3.1	3.5	3.5	—	2.6	3.0	3.6	—	1.6	2.3	1.9
50,001 or more	—	2.0	3.1	2.9	—	1.8	2.2	2.2	—	0.7	0.7	1.4
Parents' highest education level												
Less than high school diploma	3.5	3.4	4.8	5.9	4.3	4.6	5.8	5.1	2.3	4.1	2.0	4.7
High school diploma or GED	2.3	2.2	2.6	3.0	2.2	2.2	2.9	3.2	1.4	1.4	1.4	1.8
Some college/vocational/technical	2.0	2.0	2.8	2.7	1.7	1.9	2.6	2.4	1.3	1.4	1.4	1.8
Bachelor's degree	3.2	3.3	3.6	3.6	2.2	2.6	3.0	3.8	1.9	1.6	1.1	2.0
Graduate/professional school	3.0	2.8	5.1	4.3	3.2	2.8	3.2	3.5	1.8	1.3	1.8	2.4
Family structure												
Two biological or adoptive parents	—	1.4	1.8	1.7	—	1.6	1.6	1.8	—	1.0	0.9	1.1
One biological or adoptive parent	—	3.2	3.1	3.7	—	2.2	3.2	3.2	—	1.4	1.2	2.2
One biological/adoptive and one stepparent	—	7.6	8.7	11.5	—	6.3	6.7	10.5	—	3.7	2.2	2.6
Other relatives	—	9.5	7.0	10.3	—	10.0	10.1	12.1	—	6.5	2.3	3.0

— Not available.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), 1991 (Early Childhood Education File), 1993 (School Readiness File), 1995 (Early Childhood Program Participation File), and 1996 (Parent and Family Involvement in Education File).

Table S44-1 Standard errors for table 44-1

Selected student characteristics	3-year-olds Total	3-year-olds Center-based programs	3-year-olds Kindergarten	3-year-olds Center-based and kindergarten	4-year-olds Total	4-year-olds Center-based programs	4-year-olds Kindergarten	4-year-olds Center-based and kindergarten	5-year-olds Total	5-year-olds Center-based programs	5-year-olds Kindergarten	5-year-olds Center-based and kindergarten
Total	**1.5**	**1.6**	—	—	**1.5**	**1.4**	**0.2**	**0.2**	**0.7**	**1.1**	**1.3**	**0.8**
Sex												
Male	2.3	2.3	—	—	1.7	1.7	0.3	0.3	1.0	1.7	1.9	1.3
Female	1.9	2.0	—	—	2.1	2.0	0.4	0.1	0.9	1.3	2.0	1.2
Race–ethnicity												
White	2.4	2.4	—	—	1.9	1.9	0.3	0.2	0.8	1.5	1.4	1.1
Black	4.1	4.2	—	—	4.5	4.4	0.9	—	1.9	2.6	3.4	2.2
Hispanic	2.5	2.4	—	—	3.0	3.2	0.7	1.1	1.6	2.2	2.4	1.4
Other	7.1	7.1	—	—	5.6	5.7	0.7	0.7	1.6	6.7	7.5	6.7
Household income												
$10,000 or less	3.8	3.8	—	—	4.8	4.7	0.3	0.3	1.7	3.1	3.7	1.8
10,001–20,000	3.5	3.5	—	—	4.4	4.3	0.7	0.4	2.1	2.9	3.7	2.8
20,001–35,000	2.7	2.7	—	—	2.8	2.9	0.3	0.5	1.4	2.0	2.6	1.7
35,001–50,000	3.5	3.5	—	—	3.0	2.9	0.9	0.2	2.3	2.3	2.9	2.1
50,001 or more	3.1	3.1	—	—	2.2	2.2	0.5	0.3	0.7	2.2	2.3	1.7
Parents' highest education level												
Less than high school diploma	4.8	4.5	—	—	5.8	5.6	0.6	—	2.0	3.7	4.4	1.9
High school diploma or GED	2.6	2.6	—	—	2.9	2.7	0.3	0.4	1.4	1.9	2.3	1.6
Some college/vocational/technical	2.8	2.8	—	—	2.6	2.8	0.6	0.2	1.4	2.4	2.5	1.8
Bachelor's degree	3.6	3.5	—	—	3.0	3.2	0.9	—	1.1	2.9	3.7	2.8
Graduate/professional school	5.1	5.1	—	—	3.2	3.3	0.6	0.7	1.8	3.4	3.3	2.6
Family structure												
Two biological or adoptive parents	1.8	1.8	—	—	1.6	1.5	0.3	0.2	0.9	1.2	1.4	1.0
One biological or adoptive parent	3.1	3.1	—	—	3.2	3.2	0.4	0.3	1.2	1.9	2.5	2.0
One biological/adoptive and one stepparent	8.7	7.7	—	—	6.7	6.5	1.6	0.9	2.2	4.4	4.8	3.1
Other relatives	7.0	7.0	—	—	10.1	10.1	—	—	2.3	9.9	10.1	4.3
Mother's first language												
English	1.8	1.8	—	—	1.7	1.6	0.2	0.1	0.8	1.3	1.4	0.9
Spanish	2.5	2.3	—	—	3.9	4.2	1.1	1.7	1.9	2.8	3.3	1.8
Other	7.0	7.0	—	—	6.8	7.5	2.8	—	4.1	4.9	6.2	3.3
Poverty status												
Poor	2.9	2.9	—	—	3.4	3.4	0.3	0.2	1.5	2.4	3.1	1.6
Nonpoor	1.7	1.7	—	—	1.4	1.4	0.3	0.2	0.7	1.2	1.4	0.9
Mother's employment status												
35 hours or more per week	2.2	2.3	—	—	2.4	2.3	0.4	0.4	1.0	2.1	2.1	1.7
Less than 35 hours per week	3.3	3.3	—	—	2.7	3.0	0.6	0.2	1.4	2.8	2.8	1.9
Looking for work	7.4	7.3	—	—	6.2	6.3	0.7	—	3.9	5.4	7.1	2.7
Not in labor force	2.8	2.7	—	—	2.3	2.3	0.4	—	1.0	1.9	2.2	0.9

— Not applicable

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), 1995 (Early Childhood Program Participation File).

Table S46 Standard errors for the text table in *Indicator 46*

	Black					Hispanic				
	Public schools					Public schools				
Year	Total	Central city	Other metro-politan	Non-metro-politan	Private schools	Total	Central city	Other metro-politan	Non-metro-politan	Private schools
1970	0.2	0.8	0.3	0.4	0.5	—	—	—	—	—
1972	0.2	0.7	0.3	0.4	0.5	0.2	0.6	0.3	0.3	0.6
1974	0.3	0.7	0.3	0.4	0.5	0.2	0.6	0.3	0.3	0.8
1976	0.3	0.8	0.4	0.4	0.6	0.2	0.6	0.4	0.3	0.7
1978	0.3	0.8	0.4	0.4	0.6	0.2	0.7	0.4	0.3	0.7
1979	0.3	0.8	0.4	0.4	0.7	0.2	0.7	0.4	0.3	0.7
1982	0.3	0.9	0.4	0.5	0.7	0.3	0.8	0.4	0.4	0.9
1985	0.3	0.9	0.4	0.5	0.6	0.3	1.0	0.5	0.4	0.9
1986	0.3	0.8	0.4	0.5	0.7	0.3	0.9	0.5	0.5	0.9
1988	0.3	0.9	0.4	0.5	0.9	0.3	1.0	0.6	0.6	1.1
1990	0.3	0.8	0.4	0.5	0.8	0.3	0.9	0.6	0.5	1.0
1991	0.3	0.8	0.4	0.5	0.8	0.3	0.9	0.5	0.5	1.0
1992	0.3	0.8	0.4	0.4	0.8	0.3	0.9	0.6	0.5	1.0
1993	0.3	0.8	0.4	0.4	0.9	0.3	0.9	0.5	0.5	1.0
1994	0.3	0.7	0.3	0.4	0.7	0.3	0.7	0.4	0.4	0.7
1995	0.3	0.7	0.3	0.4	0.7	0.3	0.7	0.4	0.4	0.6
1996	0.3	0.7	0.3	0.4	0.7	0.3	0.7	0.4	0.5	0.7

— Not available.

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-20, "Level of Enrollment Below College for Persons 3 to 24 Years Old, by Control of School, Metropolitan Status, Sex, Race, and Hispanic Origin," various years; and October Current Population Surveys.

Table S50 Standard errors for the text table in *Indicator 50*

Enrollment characteristics	MBA	MAT, MEd, MA/MS in education	MA/MS (except education)	PhD	EdD	MD	Law (LLB or JD)
Time from bachelor's degree to program enrollment							
Less than 1 year	3.0	2.6	2.9	5.0	3.0	4.9	3.6
1–2 years	5.6	2.5	2.8	4.7	2.7	4.4	3.0
3–6 years	5.0	3.0	3.6	3.8	7.0	2.4	3.0
7 years or more	4.0	3.4	3.1	4.8	7.9	4.2	1.6
Attendance pattern							
Full-time, full-year	2.5	1.6	2.0	4.5	5.3	2.2	2.2
Part-time, full-year	3.0	2.3	2.0	4.0	6.9	0.7	2.1
Part-year	2.2	2.2	2.4	1.8	7.6	2.0	1.2
Employment status							
Worked at all	3.1	2.5	2.7	4.4	2.6	4.3	3.3
Worked full time if worked	4.0	2.9	4.0	5.0	6.9	3.9	2.5
Primary role if working							
Student working to meet expenses	3.3	3.2	4.0	4.7	7.1	9.7	3.1
Employee enrolled in school	3.3	3.2	4.0	4.7	7.1	9.7	3.1

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1995–96, Graduate Data Analysis System.

Table S51 Standard errors for the text table in *Indicator 51*

October	Total	Sex		Race–ethnicity			Family income		
		Male	Female	White	Black	Hispanic	Low	Middle	High
1972	0.3	0.5	0.5	0.3	1.3	2.8	1.6	0.5	0.4
1974	0.3	0.5	0.5	0.4	1.4	2.5	—	—	—
1976	0.3	0.5	0.4	0.4	1.2	2.1	1.6	0.5	0.3
1978	0.3	0.5	0.5	0.4	1.3	2.8	1.7	0.5	0.4
1980	0.3	0.5	0.5	0.4	1.2	2.6	1.5	0.5	0.4
1982	0.3	0.5	0.5	0.4	1.2	2.3	1.5	0.5	0.4
1984	0.3	0.5	0.5	0.4	1.1	2.5	1.5	0.5	0.4
1986	0.3	0.5	0.5	0.3	1.1	2.7	1.3	0.5	0.3
1988	0.4	0.5	0.5	0.4	1.2	3.1	1.6	0.5	0.4
1990	0.3	0.5	0.5	0.4	1.2	2.3	1.4	0.5	0.3
1991	0.3	0.5	0.5	0.4	1.2	2.2	1.4	0.4	0.3
1992	0.4	0.5	0.5	0.4	1.1	2.2	1.4	0.5	0.4
1993	0.4	0.5	0.5	0.4	1.2	2.0	1.6	0.5	0.4
1994	0.3	0.5	0.5	0.4	1.0	1.5	1.4	0.4	0.4
1995	0.4	0.5	0.5	0.4	1.0	1.6	1.4	0.5	0.4
1996	0.3	0.5	0.5	0.4	1.1	1.5	1.3	0.5	0.4
1997	0.3	0.5	0.4	0.4	0.9	1.5	1.4	0.4	0.4

— Not available.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Dropout Rates in the United States, 1997*, 1999 (based on the October Current Population Surveys).

Table S51-1 Standard errors for table 51-1

Parents' highest education level	1990	1991	1992	1993	1994	1995	1996	1997
Total	**0.3**	**0.3**	**0.4**	**0.4**	**0.3**	**0.4**	**0.3**	**0.3**
Less than high school completion	1.4	1.3	1.5	1.6	1.4	1.4	1.5	1.6
High school completion	0.5	0.6	0.6	0.6	0.7	0.8	0.6	0.6
Some college	0.6	0.6	0.5	0.6	0.5	0.5	0.6	0.5
Bachelor's degree or higher	0.3	0.4	0.3	0.4	0.3	0.3	0.3	0.3
Not available	3.8	3.8	3.3	3.2	3.1	3.2	3.5	2.9

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys, various years.

Table S52(a) Standard errors for the first text table in *Indicator 52*

Recency of migration	Total	Hispanic Total	Hispanic Mexican	Hispanic Other Hispanic	Non-Hispanic Total	Non-Hispanic White	Non-Hispanic Black	Non-Hispanic Asian/ Pacific Islander
Total	**0.3**	**1.1**	**1.4**	**2.3**	**0.3**	**0.3**	**0.8**	**1.1**
Born outside 50 states/D.C.	1.1	2.0	2.6	3.3	1.0	1.3	2.5	1.6
First generation	0.8	1.6	2.1	2.8	0.8	1.1	2.8	1.2
Later generation	0.3	2.0	2.2	5.5	0.3	0.3	0.9	2.9

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Survey, 1997.

Table S52(b) Standard errors for the second text table in *Indicator 52*

Year and recency of migration	Total	Hispanic Total	Hispanic Mexican	Hispanic Other Hispanic	Non-Hispanic Total	Non-Hispanic White	Non-Hispanic Black	Non-Hispanic Asian/ Pacific Islander
1979 Total	**0.3**	**2.0**	**2.5**	**3.5**	**0.8**	**0.3**	**1.2**	—
Born outside 50 states/D.C	2.4	3.0	5.3	4.8	4.4	2.4	5.3	—
First generation	1.2	4.1	3.8	5.1	5.7	1.2	9.9	—
Later generation	0.3	3.0	4.3	6.0	0.8	0.0	1.3	—
1989 Total	**0.3**	**2.7**	**2.8**	**3.9**	**0.7**	**0.3**	**0.9**	**1.5**
Born outside 50 states/D.C	2.7	4.1	3.8	4.6	3.2	1.8	3.5	1.9
First generation	1.4	5.4	5.4	14.5	4.1	0.9	5.6	3.3
Later generation	0.3	3.9	4.0	9.0	0.8	0.3	1.0	2.8
1997 Total	**0.3**	**1.2**	**1.5**	**2.1**	**0.2**	**0.2**	**0.7**	**1.1**
Born outside 50 states/D.C	0.9	1.5	1.9	2.5	0.8	1.2	2.8	1.3
First generation	0.9	2.1	3.3	2.3	0.9	1.0	4.0	2.0
Later generation	0.2	2.2	2.6	4.6	0.2	0.3	0.7	2.3

—Not available.

SOURCE: U.S. Department of Commerce, Bureau of the Census, Current Population Survey, November 1979 and 1989, and Current Population Survey, October 1997.

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Table S52-1 Standard errors for table 52-1

Recency of migration	Total	Hispanic Total	Hispanic Puerto Rican	Hispanic Mexican	Hispanic Other Hispanic	Non-Hispanic Total	Non-Hispanic White	Non-Hispanic Black	Non-Hispanic Asian/ Pacific Islander
Born outside 50 states/D.C.	0.8	2.0	1.8	1.4	1.4	0.9	0.6	1.7	1.6
First generation	0.8	2.1	2.1	1.4	1.4	0.9	0.7	2.1	2.8
Later generation	0.4	2.2	0.4	0.5	0.4	0.3	0.2	0.6	3.0

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Survey, 1997.

Table S53 Standard errors for the text table in *Indicator 53*

				Family income				Race–ethnicity				
		Type of institution		Low		Middle	High	White	Black		Hispanic	
October	Total	2-year	4-year	Annual	3-year average	Annual	Annual	Annual	Annual	3-year average	Annual	3-year average
1972	1.3	—	—	3.4	(*)	1.7	2.2	1.4	4.6	(*)	9.7	(*)
1975	1.3	1.0	1.2	3.6	(*)	1.7	2.1	1.4	4.7	2.7	8.4	4.9
1979	1.3	1.0	1.2	3.8	2.1	1.7	2.0	1.4	4.7	2.6	7.9	4.8
1983	1.4	1.1	1.3	4.0	2.2	1.9	2.2	1.6	4.3	2.5	9.0	4.7
1987	1.5	1.2	1.4	3.9	2.2	2.1	2.2	1.7	4.8	2.7	8.3	5.0
1990	1.6	1.3	1.6	4.8	2.6	2.1	2.5	1.8	5.1	3.0	10.8	5.7
1991	1.6	1.4	1.6	4.5	2.6	2.2	2.4	1.8	5.2	2.9	9.6	5.5
1992	1.6	1.4	1.6	4.4	2.6	2.2	2.3	1.8	4.9	3.0	8.5	5.0
1993	1.6	1.4	1.6	4.6	2.6	2.1	2.5	1.9	5.3	3.0	8.2	5.0
1994	1.4	1.2	1.4	4.0	2.3	1.9	2.2	1.6	4.4	2.5	6.3	3.2
1995	1.4	1.2	1.4	3.6	2.2	2.0	1.9	1.6	4.2	2.4	4.9	3.2
1996	1.4	1.3	1.5	3.8	2.2	1.9	2.3	1.7	4.0	2.4	5.8	3.0
1997	1.4	1.2	1.5	1.4	(*)	2.0	2.0	1.6	4.1	(*)	4.5	(*)

— Not available.

* Not applicable.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Table S53-1 Standard errors for table 53-1

Parents' highest education level	1990	1991	1992	1993	1994	1995	1996	1997
Total	**1.6**	**1.6**	**1.6**	**1.6**	**1.4**	**1.4**	**1.4**	**1.4**
Less than high school diploma	4.9	4.9	5.0	6.0	5.0	4.4	5.6	5.5
High school diploma or GED	2.8	3.0	3.0	2.9	3.0	2.9	2.8	3.0
Some college	3.4	3.3	3.0	3.3	2.8	2.5	2.7	2.7
Bachelor's degree or higher	2.4	2.2	2.4	2.1	2.1	1.8	2.0	1.9
Not available	5.7	5.7	5.4	5.0	4.2	4.2	4.4	4.0

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Table S53-2 Standard errors for table 53-2

				Family income				Race–ethnicity				
		Type of institution		Low		Middle	High	White	Black		Hispanic	
October	Total	2-year	4-year	Annual	3-year average	Annual	Annual	Annual	Annual	3-year average	Annual	3-year average
1972	1.3	—	—	3.4	(*)	1.7	2.2	1.4	4.6	(*)	9.7	(*)
1973	1.3	0.9	1.2	3.2	(*)	1.7	2.1	1.4	4.3	2.6	9.0	5.3
1974	1.3	0.9	1.2	—	—	—	—	1.4	4.6	2.6	8.9	5.1
1975	1.3	1.0	1.2	3.6	(*)	1.7	2.1	1.4	4.7	2.7	8.4	4.9
1976	1.3	0.9	1.2	4.2	2.2	1.8	2.1	1.4	4.8	2.7	8.0	4.7
1977	1.3	1.0	1.2	3.5	2.2	1.8	2.0	1.4	4.7	2.7	8.0	4.7
1978	1.3	1.0	1.2	3.7	2.1	1.7	2.1	1.4	4.5	2.7	8.4	4.7
1979	1.3	1.0	1.2	3.8	2.1	1.7	2.0	1.4	4.7	2.6	7.9	4.8
1980	1.3	1.0	1.2	3.5	2.1	1.8	2.1	1.4	4.4	2.6	8.7	4.8
1981	1.3	1.1	1.2	3.9	2.1	1.7	2.1	1.4	4.4	2.5	8.2	4.7
1982	1.4	1.1	1.3	3.8	2.3	1.8	2.1	1.5	4.3	2.6	8.0	4.9
1983	1.4	1.1	1.3	4.0	2.2	1.9	2.2	1.6	4.3	2.5	9.0	4.7
1984	1.4	1.1	1.3	3.6	2.3	1.9	2.1	1.5	4.1	2.5	7.7	4.9
1985	1.4	1.2	1.4	4.1	2.2	2.0	2.2	1.6	4.8	2.6	9.8	5.2
1986	1.4	1.1	1.4	3.6	2.2	2.0	2.3	1.6	4.4	2.7	8.9	5.2
1987	1.5	1.2	1.4	3.9	2.2	2.1	2.2	1.7	4.8	2.7	8.3	5.0
1988	1.6	1.3	1.5	4.4	2.5	2.1	2.5	1.8	4.9	3.0	10.1	6.0
1989	1.6	1.4	1.6	4.6	2.7	2.3	2.6	1.9	5.3	3.0	10.5	6.3
1990	1.6	1.3	1.6	4.8	2.6	2.1	2.5	1.8	5.1	3.0	10.8	5.7
1991	1.6	1.4	1.6	4.5	2.6	2.2	2.4	1.8	5.2	2.9	9.6	5.5
1992	1.6	1.4	1.6	4.4	2.6	2.2	2.3	1.8	4.9	3.0	8.5	5.0
1993	1.6	1.4	1.6	4.6	2.6	2.1	2.5	1.9	5.3	3.0	8.2	5.0
1994	1.4	1.2	1.4	4.0	2.3	1.9	2.2	1.6	4.4	2.5	6.3	3.2
1995	1.4	1.2	1.4	3.6	2.2	2.0	1.9	1.6	4.2	2.4	4.9	3.2
1996	1.4	1.3	1.5	3.8	2.2	1.9	2.3	1.7	4.0	2.4	5.8	3.0
1997	1.4	1.2	1.5	3.7	(*)	2.0	2.0	1.6	4.1	(*)	4.5	(*)

— Not available.

* Not applicable.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Table S54 Standard errors for the text table in *Indicator 54*

	Ages 18–24				Ages 25–34				Age 35 or older			
October	Total	White	Black	Hispanic	Total	White	Black	Hispanic	Total	White	Black	Hispanic
1972	0.5	0.5	1.7	3.3	0.3	0.3	1.1	2.0	—	—	—	—
1974	0.5	0.5	1.6	3.2	0.3	0.3	1.1	2.2	—	—	—	—
1976	0.5	0.5	1.7	3.2	0.3	0.3	1.1	2.0	0.1	0.1	0.6	1.2
1978	0.4	0.5	1.6	2.9	0.2	0.3	1.0	1.8	0.1	0.1	0.6	1.2
1980	0.4	0.5	1.5	2.8	0.2	0.3	0.9	1.6	0.1	0.1	0.5	0.9
1982	0.5	0.5	1.5	2.8	0.2	0.3	0.9	1.6	0.1	0.1	0.5	0.9
1984	0.5	0.5	1.5	2.8	0.1	0.0	0.8	1.6	0.1	0.1	0.4	0.6
1986	0.5	0.6	1.5	2.7	0.2	0.2	0.8	1.5	0.1	0.1	0.4	0.8
1988	0.6	0.6	1.7	3.3	0.2	0.3	0.8	1.5	0.1	0.1	0.4	0.9
1990	0.5	0.6	1.7	2.8	0.2	0.3	0.7	1.3	0.1	0.1	0.4	0.8
1991	0.6	0.6	1.7	2.9	0.2	0.3	0.8	1.4	0.1	0.1	0.4	0.7
1992	0.6	0.6	1.7	2.9	0.2	0.3	0.7	1.4	0.1	0.1	0.3	0.7
1993	0.6	0.6	1.7	2.8	0.2	0.3	0.8	1.4	0.1	0.1	0.4	0.7
1994	0.5	0.6	1.4	1.8	0.2	0.3	0.7	0.9	0.1	0.1	0.3	0.5
1995	0.5	0.6	1.4	1.7	0.2	0.3	0.7	0.8	0.1	0.1	0.3	0.5
1996	0.5	0.6	1.5	1.8	0.2	0.3	0.8	0.9	0.1	0.1	0.3	0.4
1997	0.5	0.6	1.5	1.8	0.2	0.3	0.7	0.8	0.1	0.1	0.3	0.4

— Not available.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Table S54-1 Standard errors for table 54-1

October	Ages 18–24				Ages 25–34				Age 35 or older			
	Total	White	Black	Hispanic	Total	White	Black	Hispanic	Total	White	Black	Hispanic
2-year institutions												
1973	0.2	0.3	0.8	2.2	0.1	0.1	0.6	1.5	—	—	—	—
1974	0.3	0.3	0.9	2.4	0.1	0.1	0.7	1.3	—	—	—	—
1975	0.3	0.3	1.1	2.3	0.2	0.2	0.8	1.5	—	—	—	—
1976	0.3	0.3	1.0	2.4	0.2	0.2	0.7	1.6	0.1	0.1	0.4	0.9
1977	0.3	0.3	1.0	2.3	0.2	0.2	0.8	1.3	—	—	—	—
1978	0.3	0.3	0.9	2.1	0.1	0.1	0.6	1.3	0.1	0.1	0.4	0.8
1979	0.3	0.3	1.0	2.2	0.1	0.1	0.6	1.2	0.1	0.1	0.3	0.7
1980	0.3	0.3	1.0	2.0	0.1	0.1	0.6	1.1	0.1	0.1	0.3	0.6
1981	0.3	0.3	0.9	2.1	0.1	0.1	0.5	1.1	0.1	0.1	0.3	0.8
1982	0.3	0.3	0.9	2.2	0.1	0.1	0.5	1.1	0.1	0.1	0.3	0.6
1983	0.3	0.3	0.9	2.1	0.1	0.1	0.5	1.2	0.1	0.1	0.2	0.5
1984	0.3	0.3	1.0	1.9	0.1	0.1	0.5	1.0	0.1	0.1	0.3	0.4
1985	0.3	0.3	0.9	1.9	0.1	0.1	0.5	1.0	0.1	0.1	0.3	0.5
1986	0.3	0.3	0.8	2.0	0.1	0.1	0.4	1.0	0.1	0.1	0.3	0.4
1987	0.3	0.3	1.0	1.9	0.1	0.1	0.4	0.9	0.1	0.1	0.2	0.4
1988	0.4	0.4	1.0	2.4	0.1	0.1	0.5	1.0	0.1	0.1	0.3	0.6
1989	0.3	0.4	1.1	2.3	0.1	0.1	0.4	1.0	0.1	0.1	0.2	0.7
1990	0.3	0.4	1.1	2.1	0.1	0.2	0.5	0.9	0.1	0.1	0.2	0.6
1991	0.4	0.4	1.2	2.2	0.1	0.2	0.5	1.0	0.1	0.1	0.2	0.5
1992	0.4	0.4	1.1	2.3	0.1	0.2	0.4	0.9	*0.0	0.1	0.2	0.5
1993	0.4	0.4	1.1	2.2	0.1	0.1	0.5	0.9	0.1	0.1	0.2	0.5
1994	0.3	0.4	0.9	1.3	0.1	0.1	0.5	0.6	*0.0	*0.0	0.2	0.3
1995	0.3	0.4	0.9	1.2	0.1	0.1	0.4	0.5	*0.0	*0.0	0.2	0.3
1996	0.3	0.4	0.9	1.3	0.1	0.2	0.5	0.5	*0.0	*0.0	0.2	0.3
1997	0.3	0.4	1.0	1.3	0.1	0.2	0.4	0.4	*0.0	*0.0	0.2	0.3
4-year institutions												
1973	0.4	0.4	1.2	2.5	0.1	0.1	0.6	1.2	—	—	—	—
1974	0.4	0.4	1.2	2.2	0.1	0.1	0.6	1.0	—	—	—	—
1975	0.4	0.4	1.3	2.5	0.1	0.1	0.6	1.0	—	—	—	—
1976	0.4	0.5	1.5	2.6	0.2	0.2	0.9	1.2	0.1	0.1	0.5	0.8
1977	0.4	0.5	1.4	2.5	0.2	0.2	0.9	1.6	—	—	—	—
1978	0.4	0.4	1.4	2.3	0.2	0.2	0.8	1.4	0.1	0.1	0.4	0.9
1979	0.4	0.4	1.4	2.3	0.2	0.2	0.7	1.5	0.1	0.1	0.4	0.6
1980	0.4	0.4	1.3	2.3	0.2	0.2	0.7	1.2	0.1	0.1	0.4	0.7
1981	0.4	0.4	1.3	2.1	0.2	0.2	0.7	1.2	0.1	0.1	0.4	0.6
1982	0.4	0.5	1.3	2.1	0.2	0.2	0.7	1.1	0.1	0.1	0.4	0.7
1983	0.4	0.5	1.3	2.4	0.2	0.2	0.6	1.1	0.1	0.1	0.4	0.7
1984	0.4	0.5	1.2	2.3	0.2	0.2	0.6	1.3	0.1	0.1	0.3	0.4
1985	0.4	0.5	1.2	2.2	0.2	0.2	0.6	1.2	0.1	0.1	0.3	0.7
1986	0.4	0.5	1.4	2.2	0.2	0.2	0.6	1.2	0.1	0.1	0.3	0.7
1987	0.5	0.5	1.4	2.1	0.2	0.2	0.6	1.1	0.1	0.1	0.3	0.5
1988	0.5	0.6	1.5	2.7	0.2	0.2	0.6	1.2	0.1	0.1	0.3	0.7
1989	0.5	0.6	1.5	2.5	0.2	0.2	0.6	1.1	0.1	0.1	0.3	0.6
1990	0.5	0.6	1.5	2.2	0.2	0.2	0.5	0.9	0.1	0.1	0.3	0.6
1991	0.5	0.6	1.4	2.4	0.2	0.2	0.6	1.1	0.1	0.1	0.3	0.5
1992	0.5	0.6	1.5	2.4	0.2	0.2	0.6	1.0	0.1	0.1	0.3	0.5
1993	0.5	0.6	1.5	2.3	0.2	0.2	0.6	1.0	0.1	0.1	0.3	0.5
1994	0.5	0.6	1.3	1.5	0.2	0.2	0.6	0.7	0.1	0.1	0.3	0.4
1995	0.5	0.6	1.3	1.5	0.2	0.2	0.5	0.7	0.1	0.1	0.3	0.4
1996	0.5	0.6	1.4	1.6	0.2	0.2	0.6	0.8	0.1	0.1	0.3	0.3
1997	0.5	0.6	1.4	1.5	0.2	0.2	0.6	0.7	0.1	0.1	0.3	0.3

— Not available.

* Standard errors less than 0.05 are rounded to 0.0.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Table S55 Standard errors for the text table in *Indicator 55*

Type of first institution	Attained certificate	Persisted to 1990–91	Left in 1989–90 without certificate		
			Total	Stopped out	Stayed out through 1994
Total	**0.3**	**1.2**	**1.2**	**1.0**	**1.0**
Institution in 1989–90					
Public 2-year	0.6	2.1	2.1	1.8	1.7
All 4-year	0.1	0.8	0.8	0.6	0.6
Public	0.1	1.1	1.1	0.8	0.8
Private, not-for-profit	0.1	1.0	1.0	0.7	0.7

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1989–90 Beginning Postsecondary Students Longitudinal Study, Second Follow-up (BPS:90/94), Data Analysis System.

Table S55-1 Standard errors for table 55-1

Persistence or departure status and type of first institution	Attained by 1994 (highest degree)				No degree, enrolled in 1994	No degree, not enrolled in 1994
	Total	Certificate	Associate degree	Bachelor's degree		
			All beginning students			
Total	**1.1**	**0.8**	**0.8**	**1.0**	**0.7**	**1.1**
Persistence or departure in 1989–90						
Persisted to 1990–91	1.2	1.1	1.1	1.3	0.9	1.1
Stopped out, returned to same institution	4.2	3.2	3.0	1.3	3.5	4.7
Stopped out, transferred to another institution	3.9	3.8	2.0	0.8	3.1	3.5
			All 4-year			
Total	**1.3**	**0.4**	**0.4**	**1.4**	**0.8**	**1.0**
Persistence or departure in 1989–90						
Persisted to 1990–91	1.2	0.3	0.4	1.3	0.9	0.9
Stopped out, returned to same institution	4.4	0.7	1.3	4.2	4.4	4.7
Stopped out, transferred to another institution	4.0	3.2	2.9	2.0	3.3	4.3
			Public 4-year			
Total	**1.6**	**0.5**	**0.5**	**1.6**	**1.0**	**1.4**
Persistence or departure in 1989–90						
Persisted to 1990–91	1.6	0.5	0.6	1.7	1.2	1.2
Stopped out, returned to same institution	4.9	0.0	1.8	4.7	5.8	6.0
Stopped out, transferred to another institution	5.2	4.1	3.7	2.4	4.2	5.5
			Private, not-for-profit 4-year			
Total	**1.6**	**0.4**	**0.4**	**1.9**	**0.8**	**1.4**
Persistence or departure in 1989–90						
Persisted to 1990–91	1.4	0.4	0.4	1.7	0.8	1.1
Stopped out, returned to same institution	7.3	2.5	0.8	7.7	4.6	6.1
Stopped out, transferred to another institution	5.1	2.5	4.0	3.3	4.5	5.3
			Public 2-year			
Total	**2.0**	**1.4**	**1.6**	**1.0**	**1.5**	**2.0**
Persistence or departure in 1989–90						
Persisted to 1990–91	2.6	2.1	2.4	1.7	2.0	2.5
Stopped out, returned to same institution	5.8	3.6	4.7	1.3	4.3	5.7
Stopped out, transferred to another institution	6.3	6.3	2.8	0.0	5.5	5.6

NOTE: Standard errors less than 0.05 are rounded to 0.0.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1989–90 Beginning Postsecondary Students Longitudinal Study, Second Follow-up (BPS:90/94), Data Analysis System.

Table S56 Standard errors for the text table in *Indicator 56*

First-generation status	Persisted: Attained degree or certificate	Persisted: No degree or certificate, enrolled	Persisted: Total	No degree or certificate, not enrolled	Highest degree attained: No degree or certificate	Highest degree attained: Certificate	Highest degree attained: Associate degree	Highest degree attained: Bachelor's degree
				All institutions				
Total	**1.1**	**0.7**	**1.1**	**1.1**	**1.1**	**0.8**	**0.8**	**1.0**
First generation	1.6	1.1	1.7	1.7	1.6	1.3	1.1	1.1
Parents have some college	2.0	1.5	2.0	2.0	1.9	1.4	1.5	1.8
Parents have bachelor's or advanced degree	1.6	1.3	1.5	1.5	1.7	0.8	1.2	1.7
				Public 4-year				
Total	**1.7**	**1.1**	**1.4**	**1.4**	**1.6**	**0.5**	**0.6**	**1.6**
First generation	2.5	1.7	2.3	2.3	2.4	1.3	1.1	2.5
Parents have some college	2.8	1.9	2.4	2.4	2.8	0.6	1.1	2.7
Parents have bachelor's or advanced degree	1.9	1.7	1.5	1.5	1.9	0.5	0.7	1.9
				Private, not-for-profit 4-year				
Total	**1.7**	**0.8**	**1.4**	**1.4**	**1.6**	**0.4**	**0.4**	**1.9**
First generation	2.6	1.3	2.3	2.3	2.5	0.7	0.8	3.1
Parents have some college	2.6	1.4	2.3	2.3	2.5	1.2	1.1	2.6
Parents have bachelor's or advanced degree	1.9	1.1	1.4	1.4	1.9	0.4	0.6	2.1
				Public 2-year				
Total	**1.9**	**1.5**	**2.0**	**2.0**	**2.0**	**1.4**	**1.6**	**1.0**
First generation	2.8	1.9	3.0	3.0	2.7	2.2	2.0	1.1
Parents have some college	4.1	3.3	4.4	4.4	4.1	2.6	3.3	2.1
Parents have bachelor's or advanced degree	3.6	3.3	3.6	3.6	3.9	2.3	3.1	2.1

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1989–90 Beginning Postsecondary Students Longitudinal Study, Second Follow-up (BPS:90/94), Data Analysis System.

Table S56-1 Standard errors for table 56-1

Student characteristics	Total	First-generation status		
		First generation	Parents have some college	Parents have bachelor's or advanced degree
Sex				
Male	1.0	1.7	1.9	1.5
Female	1.0	1.7	1.9	1.5
Age in 1989–90				
18 years or younger	1.3	1.8	2.2	1.6
19–24 years	1.0	1.5	2.1	1.6
25–29 years	0.5	1.1	0.8	0.4
30 years or older	0.8	1.2	1.0	0.4
Race-ethnicity				
White	1.2	1.8	1.8	1.4
Black	0.7	1.0	1.4	0.9
Hispanic	0.7	1.3	1.1	0.7
Asian/Pacific Islander	0.5	0.7	0.7	0.8
American Indian/Alaskan Native	0.2	0.4	0.1	0.3
Marital status in 1989–90				
Not married	0.9	1.5	1.4	0.7
Married	0.9	1.5	1.3	0.7
Separated	0.3	0.5	0.5	0.1
Dependency status in 1989–90				
Dependent	1.2	1.8	1.8	1.0
Single independent	0.7	1.2	1.3	0.7
Independent with dependents	0.9	1.6	1.3	0.8
Socioeconomic status in 1989–90				
Lowest quartile	0.8	1.4	1.2	0.5
Middle quartiles	1.0	1.6	2.0	1.5
Highest quartile	1.1	1.3	1.9	1.5
Educational aspirations in 1989–90				
Trade school	0.6	1.2	1.1	0.4
2-year degree	0.8	1.5	1.4	1.0
Bachelor's degree	1.1	1.6	2.1	1.6
Advanced degree	1.0	1.5	2.1	1.6
SAT total score				
Less than 600	0.9	1.7	1.3	1.2
600–799	1.6	3.3	2.6	1.8
800–999	1.9	3.0	2.9	2.5
1,000–1,199	1.5	2.5	2.7	2.1
1,200–1,399	1.4	0.9	1.3	2.2
1,400 or more	0.4	0.2	0.4	0.6

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1989–90 Beginning Postsecondary Students Longitudinal Study, Second Follow-up (BPS:90/94), Data Analysis System.

Table S56-2 Standard errors for table 56-2

Parent's highest education level	Public 4-year	Private, not-for-profit 4-year	Public 2-year	Other
Total	**1.7**	**0.9**	**1.8**	**1.0**
High school or less	1.6	0.7	2.2	1.5
Some college	2.5	1.2	3.0	1.3
Bachelor's or advanced degree	2.3	1.6	2.4	0.8

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1989–90 Beginning Postsecondary Students Longitudinal Study, Second Follow-up (BPS:90/94), Data Analysis System.

Table S59 Standard errors for the text table in *Indicator 59*

March	Diploma or equivalency certificate				High school completers with:							
					Some college				Bachelor's degree or higher			
	Total	White	Black	Hispanic	Total	White	Black	Hispanic	Total	White	Black	Hispanic
1971	0.5	0.5	2.2	2.9	0.7	0.7	2.6	3.8	0.6	0.6	1.8	2.5
1973	0.5	0.5	2.0	2.6	0.6	0.7	2.5	3.3	0.5	0.6	1.8	2.2
1975	0.4	0.4	1.8	2.5	0.6	0.7	2.3	3.3	0.5	0.6	1.7	2.5
1977	0.4	0.4	1.7	2.5	0.6	0.6	2.2	3.3	0.5	0.6	1.7	2.1
1979	0.4	0.4	1.6	2.3	0.6	0.6	2.1	3.1	0.5	0.6	1.6	2.1
1981	0.4	0.3	1.5	2.1	0.6	0.6	2.0	2.7	0.5	0.5	1.4	1.8
1983	0.4	0.4	1.4	2.2	0.6	0.6	2.0	2.9	0.5	0.6	1.5	2.2
1985	0.4	0.4	1.4	2.1	0.6	0.6	1.9	2.8	0.5	0.6	1.4	2.1
1987	0.4	0.4	1.3	2.0	0.6	0.6	1.9	2.6	0.5	0.6	1.3	1.8
1989	0.4	0.4	1.4	2.2	0.6	0.7	2.0	2.9	0.5	0.6	1.5	2.2
1991	0.4	0.4	1.4	2.0	0.6	0.7	2.0	2.6	0.5	0.6	1.3	2.0
1992	0.4	0.4	1.4	2.0	0.6	0.7	2.0	2.6	0.5	0.6	1.4	1.9
1993	0.4	0.4	1.4	1.9	0.6	0.7	2.0	2.5	0.5	0.6	1.5	1.7
1994	0.4	0.4	1.1	1.2	0.6	0.6	1.7	1.6	0.5	0.6	1.2	1.1
1995	0.4	0.3	1.0	1.3	0.6	0.6	1.6	1.7	0.5	0.6	1.3	1.2
1996	0.4	0.4	1.1	1.3	0.6	0.7	1.7	1.7	0.5	0.7	1.3	1.2
1997	0.4	0.3	1.1	1.2	0.6	0.7	1.7	1.6	0.6	0.7	1.3	1.2
1998	0.4	0.3	1.0	1.2	0.6	0.7	1.7	1.6	0.6	0.7	1.3	1.2

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

Table S59-1 Standard errors for table 59-1

	All			White			Black			Hispanic		
March	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
1971	0.5	0.7	0.7	0.5	0.7	0.7	2.2	3.2	2.9	2.9	4.3	3.9
1972	0.5	0.7	0.7	0.5	0.7	0.7	2.1	3.2	2.8	2.9	4.3	4.0
1973	0.5	0.7	0.7	0.5	0.7	0.7	2.0	3.0	2.7	2.6	3.8	3.5
1974	0.4	0.6	0.6	0.4	0.6	0.6	1.9	2.8	2.6	2.5	3.6	3.4
1975	0.4	0.6	0.6	0.4	0.6	0.6	1.8	2.7	2.5	2.5	3.5	3.4
1976	0.4	0.5	0.6	0.4	0.5	0.6	1.7	2.7	2.3	2.5	3.6	3.4
1977	0.4	0.5	0.6	0.4	0.5	0.6	1.7	2.4	2.3	2.5	3.6	3.4
1978	0.4	0.5	0.6	0.4	0.5	0.6	1.6	2.4	2.2	2.3	3.3	3.2
1979	0.4	0.5	0.5	0.4	0.5	0.5	1.6	2.5	2.2	2.3	3.4	3.2
1980	0.4	0.5	0.5	0.4	0.5	0.5	1.5	2.3	2.0	2.2	3.1	3.0
1981	0.4	0.5	0.5	0.3	0.5	0.5	1.5	2.1	2.0	2.1	3.0	2.9
1982	0.4	0.5	0.5	0.4	0.5	0.5	1.4	2.1	1.9	2.1	3.1	2.9
1983	0.4	0.5	0.5	0.4	0.5	0.5	1.4	2.1	1.9	2.2	3.1	3.0
1984	0.4	0.5	0.5	0.4	0.5	0.5	1.4	2.2	1.8	2.1	3.0	2.9
1985	0.4	0.5	0.5	0.4	0.5	0.5	1.4	2.0	1.9	2.1	3.1	2.9
1986	0.4	0.5	0.5	0.4	0.5	0.5	1.3	1.7	1.8	2.0	2.9	2.9
1987	0.4	0.5	0.5	0.4	0.5	0.5	1.3	1.8	1.8	2.0	2.8	2.8
1988	0.4	0.6	0.5	0.4	0.6	0.5	1.5	2.2	2.0	2.3	3.2	3.2
1989	0.4	0.6	0.5	0.4	0.6	0.5	1.4	2.2	1.9	2.2	3.1	3.2
1990	0.4	0.6	0.5	0.4	0.6	0.5	1.4	2.1	1.9	2.0	2.7	2.8
1991	0.4	0.6	0.5	0.4	0.6	0.5	1.4	1.9	1.9	2.0	2.8	2.9
1992	0.4	0.5	0.5	0.4	0.6	0.5	1.4	2.0	2.0	2.0	2.7	2.9
1993	0.4	0.6	0.5	0.4	0.6	0.5	1.4	1.9	2.0	1.9	2.6	2.8
1994	0.4	0.5	0.5	0.4	0.5	0.5	1.1	1.7	1.5	1.2	1.7	1.8
1995	0.4	0.5	0.5	0.3	0.5	0.5	1.0	1.5	1.5	1.3	1.7	1.8
1996	0.4	0.5	0.5	0.4	0.5	0.5	1.1	1.6	1.6	1.3	1.7	1.9
1997	0.4	0.5	0.5	0.3	0.5	0.5	1.1	1.7	1.4	1.2	1.7	1.8
1998	0.4	0.5	0.5	0.3	0.5	0.4	1.0	1.5	1.4	1.2	1.7	1.8

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

Table S59-2 Standard errors for table 59-2

March	All			White			Black			Hispanic		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
1971	0.7	1.0	0.9	0.7	1.0	1.0	2.6	3.9	3.6	3.8	5.8	4.9
1972	0.7	0.9	0.9	0.7	1.0	1.0	2.6	3.9	3.4	4.0	6.0	5.2
1973	0.6	0.9	0.9	0.7	1.0	1.0	2.5	3.7	3.3	3.3	5.0	4.2
1974	0.6	0.9	0.9	0.7	1.0	1.0	2.4	3.5	3.2	3.3	4.8	4.5
1975	0.6	0.9	0.9	0.7	0.9	0.9	2.3	3.5	3.1	3.3	4.9	4.4
1976	0.6	0.8	0.8	0.6	0.9	0.9	2.2	3.4	2.9	3.2	4.8	4.2
1977	0.6	0.8	0.8	0.6	0.9	0.9	2.2	3.2	3.0	3.3	4.6	4.6
1978	0.6	0.8	0.8	0.6	0.9	0.9	2.2	3.2	2.9	3.1	4.4	4.3
1979	0.6	0.8	0.8	0.6	0.9	0.9	2.1	3.2	2.9	3.1	4.6	4.1
1980	0.6	0.8	0.8	0.6	0.9	0.9	2.0	3.0	2.7	2.8	4.1	3.8
1981	0.6	0.8	0.8	0.6	0.9	0.9	2.0	2.9	2.7	2.7	3.9	3.6
1982	0.6	0.8	0.8	0.6	0.9	0.9	2.0	3.0	2.7	2.7	4.0	3.8
1983	0.6	0.8	0.8	0.6	0.9	0.9	2.0	2.9	2.7	2.9	4.1	4.0
1984	0.6	0.8	0.8	0.6	0.9	0.9	1.9	2.9	2.6	2.8	4.1	3.8
1985	0.6	0.8	0.8	0.6	0.9	0.9	1.9	2.8	2.6	2.8	4.1	3.8
1986	0.6	0.8	0.8	0.6	0.9	0.9	1.9	2.7	2.6	2.6	3.8	3.7
1987	0.6	0.8	0.8	0.6	0.9	0.9	1.9	2.7	2.6	2.6	3.7	3.7
1988	0.6	0.9	0.8	0.7	1.0	1.0	2.0	3.0	2.8	2.9	4.2	4.2
1989	0.6	0.9	0.8	0.7	1.0	1.0	2.0	3.0	2.7	2.9	4.0	4.2
1990	0.6	0.8	0.8	0.7	1.0	0.9	2.0	2.9	2.7	2.6	3.6	3.6
1991	0.6	0.8	0.8	0.7	1.0	1.0	2.0	2.8	2.7	2.6	3.6	3.8
1992	0.6	0.9	0.8	0.7	1.0	1.0	2.0	2.9	2.8	2.6	3.5	3.8
1993	0.6	0.9	0.8	0.7	1.0	1.0	2.0	2.9	2.8	2.5	3.5	3.6
1994	0.6	0.8	0.8	0.6	0.9	0.9	1.7	2.5	2.3	1.6	2.2	2.4
1995	0.6	0.8	0.8	0.6	0.9	0.9	1.6	2.4	2.3	1.7	2.3	2.4
1996	0.6	0.8	0.8	0.7	0.9	0.9	1.7	2.6	2.4	1.7	2.3	2.5
1997	0.6	0.8	0.8	0.7	0.9	0.9	1.7	2.6	2.3	1.6	2.3	2.3
1998	0.6	0.8	0.8	0.7	1.0	0.9	1.7	2.5	2.3	1.6	2.2	2.3

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

Table S59-3 Standard errors for table 59-3

March	All			White			Black			Hispanic		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
1971	0.6	0.8	0.7	0.6	0.9	0.8	1.8	2.8	2.4	2.5	4.3	2.7
1972	0.6	0.8	0.8	0.6	0.9	0.8	1.8	2.6	2.5	2.3	3.6	2.8
1973	0.5	0.8	0.7	0.6	0.9	0.8	1.8	2.5	2.4	2.2	3.4	2.9
1974	0.5	0.8	0.7	0.6	0.9	0.8	1.6	2.4	2.1	2.0	2.7	3.0
1975	0.5	0.8	0.7	0.6	0.9	0.8	1.7	2.6	2.3	2.5	3.9	3.2
1976	0.5	0.8	0.7	0.6	0.8	0.8	1.8	2.6	2.4	2.2	3.7	2.5
1977	0.5	0.8	0.7	0.6	0.9	0.8	1.7	2.4	2.3	2.1	3.0	3.0
1978	0.5	0.8	0.7	0.6	0.9	0.8	1.6	2.2	2.2	2.3	3.3	3.4
1979	0.5	0.8	0.7	0.6	0.8	0.8	1.6	2.5	2.1	2.1	3.2	2.7
1980	0.5	0.7	0.7	0.6	0.8	0.8	1.5	2.1	2.0	2.0	3.0	2.6
1981	0.5	0.7	0.7	0.5	0.8	0.7	1.4	2.1	1.9	1.8	2.8	2.3
1982	0.5	0.7	0.7	0.6	0.8	0.8	1.5	2.1	2.0	2.0	3.1	2.7
1983	0.5	0.7	0.7	0.6	0.8	0.8	1.5	2.2	2.0	2.2	3.1	3.1
1984	0.5	0.7	0.7	0.6	0.8	0.8	1.4	2.2	1.8	2.2	3.1	3.0
1985	0.5	0.7	0.7	0.6	0.8	0.8	1.4	1.9	1.9	2.1	3.2	2.9
1986	0.5	0.7	0.7	0.6	0.8	0.8	1.3	1.8	1.9	1.9	2.7	2.7
1987	0.5	0.7	0.7	0.6	0.8	0.8	1.3	1.9	1.8	1.8	2.7	2.5
1988	0.5	0.8	0.7	0.6	0.9	0.8	1.5	2.2	2.0	2.3	3.3	3.1
1989	0.5	0.8	0.7	0.6	0.9	0.9	1.5	2.2	2.0	2.2	2.9	3.2
1990	0.5	0.8	0.7	0.6	0.9	0.8	1.5	2.3	1.9	1.8	2.4	2.7
1991	0.5	0.8	0.7	0.6	0.9	0.9	1.3	2.0	1.8	2.0	2.6	3.0
1992	0.5	0.8	0.8	0.6	0.9	0.9	1.4	2.0	1.9	1.9	2.5	2.8
1993	0.5	0.8	0.8	0.6	0.9	0.9	1.5	2.1	2.1	1.7	2.3	2.6
1994	0.5	0.7	0.7	0.6	0.9	0.8	1.2	1.8	1.7	1.1	1.4	1.7
1995	0.5	0.7	0.7	0.6	0.9	0.9	1.3	1.9	1.7	1.2	1.6	1.8
1996	0.5	0.8	0.8	0.7	0.9	0.9	1.3	1.8	1.9	1.2	1.7	1.8
1997	0.6	0.8	0.8	0.7	0.9	0.9	1.3	1.8	1.8	1.2	1.7	1.9
1998	0.6	0.8	0.8	0.7	0.9	1.0	1.3	1.9	1.8	1.2	1.6	1.7

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

Sources of Data

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1. Federal Agency Sources

National Center for Education Statistics U.S. Department of Education

Baccalaureate and Beyond Longitudinal Study

The Baccalaureate and Beyond Longitudinal Study (B&B) is based on the National Postsecondary Student Aid Study (NPSAS) and provides information concerning education and work experience after completing the bachelor's degree. B&B provides cross-sectional information 1 year after bachelor's degree completion (comparable to the Recent College Graduates Study), while at the same time providing longitudinal data concerning entry into and progress through graduate level education and the work force. It also provides information on entry into, persistence and progress through, and completion of graduate level education—information not available through followups involving high school cohorts or even college entry cohorts, both of which are restricted in the number who actually complete a bachelor's degree and continue their education.

About 11,000 students who completed their degree in the 1992–93 academic year were included in the first B&B (B&B:93/94). In addition to the student data, B&B collected postsecondary transcripts covering the undergraduate period, providing complete information on progress and persistence at both the undergraduate and graduate levels. New B&B cohorts will alternate with the Beginning Postsecondary Students Longitudinal Study (BPS) in using NPSAS as their base.

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Beginning Postsecondary Students Longitudinal Study

The Beginning Postsecondary Students Longitudinal Study (BPS) provides information on persistence, progress, and attainment of students from their initial time of entry into postsecondary education through their leaving school and entering the work force. BPS includes traditional and nontraditional (e.g., older) students and is representative of all beginning students in postsecondary education. BPS followed first-time, beginning students for 5 years (through spring 1994), collecting student data and financial aid reports. By starting with a cohort that has already entered postsecondary education (from the NPSAS:90), and following it for 5 years (with the first followup in spring 1992 and the second followup in spring 1994), BPS is able to determine to what extent, if any, students who start postsecondary education later differ in their progress, persistence, and attainment. A new cohort of beginning postsecondary students from 1995–96 will be followed in 1998.

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Common Core of Data

The Common Core of Data (CCD) survey provides the National Center for Education Statistics (NCES) with a way to acquire and maintain statistical data on the 50 states, the District of Columbia, and five outlying areas from the universe of state-level education agencies. Information about staff and students is collected annually at the school, local education agency or school district (LEA), and state levels. Information about revenues and expenditures also is collected at the state level, and NCES joins the Bureau of the Census in collecting school district finance data. Data are collected for a particular school year (October 1 through September 30) via survey instruments sent to the states by October 15 of the subsequent school year. States have 1 year in which to modify the data originally submitted.

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Fast Response Survey System

The Fast Response Survey System (FRSS) was established in 1975 to collect issue-oriented data quickly and with minimum response burden. FRSS was designed to meet the data needs of Department of Education analysts, planners, and decision-makers when information could not be collected quickly through traditional NCES surveys.

The data collected through FRSS are representative at the national level, drawing from a universe that is appropriate for each study. FRSS collects data from state education agencies and national samples of other educational sectors, including:

- Local education agencies;
- Public and private elementary and secondary schools;
- Public and private postsecondary institutions;
- Public school teachers;
- Public and school libraries; and
- Adult literacy programs.

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High School and Beyond

High School and Beyond (HS&B) is a national longitudinal study of 1980 high school sophomores and seniors. The base-year survey was a probability sample of 1,015 high schools, with a target number of 36 sophomores and 36 seniors in each school. A total of 58,270 students participated in the base-year survey. Substitutions were made for noncooperating schools—but not for students—in those strata where it was possible. Overall, 1,122 schools were selected in the original sample and 811 of these schools participated in the survey. An additional 204 schools were drawn in a replacement sample. Student refusals and student absences resulted in an 82 percent completion rate for the survey.

HS&B first followup activities were conducted in the spring of 1982. The sample design of the first followup survey called for the selection of approximately 30,000 individuals who were sophomores in 1980. The completion rate for sophomores eligible for on-campus survey administration was about 96 percent. About 89 percent of the students who left school between the base-year and first followup surveys (dropouts, transfer students, and early graduates) completed the first followup sophomore questionnaire.

The sample for the second followup, which took place in the spring of 1984, consisted of about 12,000 members of the senior cohort and about 15,000 members of the sophomore cohort. The completion rates were 91 and 92 percent, respectively.

HS&B third followup data collection activities were conducted in the spring of 1986. Both the sophomore and senior cohort samples for this round of data collection were the same as those used for the second followup survey. The completion rates for the sophomore and senior cohort samples were 91 percent and 88 percent, respectively. HS&B fourth followup data collection activities have been conducted, the data is not yet available.

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High School Transcript Studies

As part of the first followup of High School and Beyond (HS&B), transcripts were requested in fall 1982 for an 18,152-member subsample of the sophomore cohort. Of the 15,941 transcripts actually obtained, 1,969 were excluded because the students had dropped out of school before graduation; 799 were excluded because they were incomplete; and 1,057 were excluded because the students graduated before 1982 or the transcript indicated neither a dropout status nor graduation. Thus, 12,116 transcripts were used for an overall curriculum analysis.

Transcripts of 1987 high school graduates were compared to transcripts of 1982 graduates to describe changes in course-taking patterns across this 5-year period. The sample of schools for the 1987 High School Transcript Study consisted of a nationally representative sample of 497 secondary schools selected for the 1986 National Assessment of Educational Progress (NAEP) for students in grade 11 who were 17 years old, of which 433 schools participated. The 1987 study was restricted to students who were in grade 11 during school year 1985–86 equaling 27,732 graduates. The 1990 High School Transcript Study was conducted using methodology and techniques nearly identical to those used in the 1987 study.

The analyses in the *Condition* focus on high school graduates, so only those students who had graduated from high school were included from the 1990 study, the 1987 High School Transcript Study, and from HS&B. Because the methods used to identify and define disabled students were different for the later studies, and in order to make the samples as comparable as possible, it was necessary to restrict the samples to those students whose records indicated they had not participated in a special education program. In the spring of 1991, transcripts were collected from 21,607 students who graduated from high school in 1990. These students attended 330 schools that had previously been sampled for the NAEP.

Between May and November of 1994, high school transcripts were collected from 25,573 students who graduated from high school in 1994. To be consistent with the 1982 study, students with an Individualized Education Program (IEP) were omitted. Also, students with incomplete transcripts were dropped, bringing the number of transcripts analyzed to 24,374. These students attended 340 schools that had previously been sampled by NAEP.

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Integrated Postsecondary Education Data System

The Integrated Postsecondary Education Data System (IPEDS) surveys all postsecondary institutions, including universities and colleges, as well as institutions offering technical and vocational education beyond the high school level. This survey system, which began in 1986, replaces and expands upon the Higher Education General Information Survey (HEGIS).

IPEDS consists of several integrated components that obtain information on where postsecondary education is available (institutions), who participates in it and completes it (students), which programs are offered and are completed, and which human and financial resources are involved in the provision of institutionally based postsecondary education. Specifically, these components include: fall enrollment in occupationally specific programs; salaries of full-time instructional faculty; completions (degrees awarded); finance; staff; institutional characteristics, including institutional activity; fall enrollment, including age and residence; and academic libraries.

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Fall Enrollment. This survey has been part of the IPEDS or HEGIS series since 1966. The enrollment survey response rate is relatively high; for example, the 1992 response rate was 86.9 percent.

Beginning in fall 1986, the survey system was redesigned with the introduction of IPEDS (see above). The new survey system comprises all postsecondary institutions, but also maintains comparability with earlier surveys by allowing HEGIS institutions to be tabulated separately. The new system also provides for preliminary and revised data releases. This allows NCES the flexibility to release early data sets while still maintaining a more accurate final database.

Salaries, Tenure, and Fringe Benefits of Full-Time Instructional Faculty. This survey has been conducted for most years between 1966–67 and 1987–88, and annually since 1989–90. Although the survey form was changed a number of times during those years, only comparable data are presented in this report. The data were collected from individual colleges and universities.

Between 1966–67 and 1985–86 this survey differed from other HEGIS surveys in that imputations were not made for nonrespondents. Thus, there is some possibility that the salary averages presented in this report may differ from the results of a complete enumeration of all colleges and universities. Beginning with the surveys for 1987–88, the IPEDS data tabulation procedures included imputations for survey nonrespondents. The response rate for the 1993–94 survey was 90.1 percent.

Completions. This survey was always part of the HEGIS series. However, the degree classification taxonomy was revised in 1970 and again in 1980, with additional revisions in 1985 and 1990. Collection of degree data has been maintained through the IPEDS system.

Though information from survey years 1970–71 through 1981–82 is directly comparable, care must be taken if information before or after that period is included in any comparison. For example, degrees-conferred trend tables arranged by the 1982–83 classification were added to the *Digest of Education Statistics, 1992* to provide consistent data from 1970–71 to 1988–89. However, data on associate's degrees and other formal awards below the baccalaureate, by field of study after 1982–83, are not comparable with figures for earlier years. The nonresponse rate did not appear to be a significant source of nonsampling error for this survey. The return rate over the years was high, with a response rate for the 1992–93 survey of 88.2 percent. Because of the high return rate, nonsampling error caused by imputation was also minimal.

Financial Statistics. This survey was part of the HEGIS series and has been continued under the IPEDS system. Changes were made in the financial survey instruments in fiscal years (FY) 1976, 1982, and 1987. The FY 76 survey instrument contained numerous revisions to earlier survey forms and made direct comparisons of line items very difficult. Beginning in FY 82, Pell grant data were collected on federal restricted grants and contracts revenues and restricted scholarships and fellowships expenditures. The introduction of IPEDS in the FY 87 survey included several important changes to the survey instrument and data processing procedures. While these changes were significant, considerable effort has been made to present only comparable information on trends in this report and to note inconsistencies. Finance tables for this publication have been adjusted by subtracting the largely duplicative Pell grant amounts from the later data to maintain comparability with pre-FY 82 data.

To reduce reporting error, NCES uses national standards for reporting financial statistics. These standards are contained in *College and University Business Administration: Administrative Services* (1974 edition), published by the National Association of College and University Business Officers; *Audits of Colleges and Universities* (as amended August 31, 1974), by the American Institute of Certified Public Accountants; and *HEGIS Financial Reporting Guide* (1980), by NCES. Wherever possible, definitions and formats in the survey form are consistent with those in these three accounting texts.

Fall Staff. The fall staff data presented in this publication were collected in cooperation with the U.S. Equal Employment Opportunity Commission (EEOC). In 1989, survey instruments were mailed to 6,669 in-scope postsecondary education institutions, including 2,576 4-year schools, 2,739 2-year schools, and 273 public less-than-2-year schools. The universe of 5,002 less-than-2-year private institutions were represented by a sample of 1,071 institutions.

The 3,589 institutions of higher education (in the 50 states and the District of Columbia) in operation in 1989 form a subset of the universe of postsecondary institutions in this report. These institutions are accredited at the college level by an agency recognized by the Secretary, U.S. Department of Education; these institutions were previously surveyed under HEGIS, which IPEDS supersedes. The 1991 "Fall Staff" survey had an overall response rate of 84.9 percent.

Institutional Characteristics. This survey provided the basis for the universe of institutions presented in the *Directory of Postsecondary Institutions.* The IPEDS contains approximately 10,000 schools whose primary purpose is to provide postsecondary education. The Institutional Characteristics survey requests information about institutions that allows the universe to be classified by control, program level, and other characteristics. Each fall, institutions are asked to update their information.

National Adult Literacy Survey

The National Adult Literacy Survey (NALS) was created as a new measure of literacy and funded by the U.S. Department of Education and by 12 states. It is the third, and largest, assessment of adult literacy funded by the federal government. The aim of the survey is to profile the English literacy of adults in the United States based on their performance across a wide array of tasks that reflect the types of materials and demands they encounter in their daily lives.

To gather the information on adults' literacy skills, trained staff interviewed nearly 13,600 individuals age 16 and older during the first 8 months of 1992. These participants had been randomly selected to represent the adult population in the country as a whole. In addition, some 1,100 inmates from 80 federal and state prisons were interviewed to gather information on the proficiencies of the prison population. In total, over 26,000 adults were surveyed.

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National Assessment of Educational Progress

The National Assessment of Educational Progress (NAEP) is a congressionally mandated study funded by the Office of Educational Research and Improvement (OERI), U.S. Department of Education. The overall goal of the project is to determine the nation's progress in education. To accomplish this goal, a cross-sectional study was designed and initially implemented in 1969. Periodically, NAEP has gathered information about levels of educational achievement across the country. NAEP has surveyed the educational accomplishments of 9-, 13-, and 17-year-old students (and in recent years, students in grades 4, 8, and 12), and occasionally young adults, in 10 learning areas. Different learning areas were assessed annually and, as of 1980–81, biennially. Most areas have been periodically reassessed in order to measure possible changes in education achievement.

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National Education Longitudinal Study of 1988

The National Education Longitudinal Study of 1988 (NELS:88) is the third major longitudinal study sponsored by NCES. The two studies that preceded NELS:88, the National Longitudinal Study of the High School Class of 1972 (NLS–72) and HS&B, surveyed high school seniors (and sophomores in HS&B) through high school, postsecondary education, and work and family formation experiences. Unlike its predecessors, NELS:88 began with a cohort of 8th-grade students.

NELS:88 is designed to provide trend data about critical transitions experienced by young people as they develop, attend school, and embark on their careers. It complements and strengthens state and local efforts by furnishing new information on how school policies, teacher practices, and family involvement affect student educational outcomes (i.e., academic achievement, persistence in school, and participation in postsecondary education). The base-year NELS:88 was a multifaceted study questionnaire with four cognitive tests, and questionnaires for students, teachers, parents, and the school.

Within the school sample, 26,000 8th-grade students were selected at random. The first and second followups revisited the same sample of students in 1990, 1992 and 1994, when the 1988 8th-graders were in the 10th and 12th grades and then 2 years after their scheduled high school graduation. A fourth followup is planned for the year 2000.

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National Household Education Survey

The National Household Education Survey (NHES) is the first attempt by NCES to go beyond its traditional, school-based data collection to a household survey. Historically, NCES has collected data from teachers, students, and schools through school-based surveys and from administrative records data through surveys of school districts and state education agencies. NHES has the potential to address many education issues that have not been addressed previously by NCES data collections.

During the spring of 1991, NCES fielded a full-scale NHES on early education. Approximately 60,000 households were screened to identify a sample of children aged 3–8. The parents of these children were interviewed in order to collect information about their children's educational activities and the role of the family in children's learning. The NHES:93 is a subsequent survey conducted in the spring of 1993. It addressed readiness for school and safety and discipline in school. The NHES:93 early childhood component focused on readiness for school in a broad sense and examined several relevant issues. The School Safety and Discipline component of the NHES:93 addressed a new topic for the NHES. It focused on four areas: school environment, school safety, school discipline policy, alcohol/other drug use, and education. In the NHES:95 survey, the Early Childhood Program Participation component provided information on infants', toddlers', and preschoolers' participation in a variety of early care and education settings, including both home-based and center-based arrangements. The survey component also included data on kindergarten and primary school history and experiences.

In the NHES:96, the topical components included Parent/Family Involvement in Education and Civic Involvement. The NHES:96 also expanded screening features to include a series of questions on public library use.

In NHES, an adult education component was fielded in 1991 and 1995. Adult household members were sampled and questioned about their participation in adult education. These adult education components were, for the most part, adapted from the previous Current Population Survey (CPS) adult education supplements. However, unlike the CPS, NHES collects information on both adult education participants and nonparticipants. The NHES:91 survey identified and screened more than 60,000 households. During the survey, a knowledgeable adult was asked a series of questions to screen all household members for adult education participation in a sample of about 20,000 of these 60,000 households, resulting in interviews with approximately 12,000 adults. In the NHES:95 survey, about 19,750 adults completed the interview.

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National Longitudinal Study of the High School Class of 1972

The National Longitudinal Study of the High School Class of 1972 (NLS) was the first major longitudinal study sponsored by NCES. NLS was designed to produce representative data at the national level on the cohort of students who were in the 12th grade in 1972. The 1972 base study was followed by follow-up studies in 1973, 1974, 1976, 1979, and 1986. The follow-up studies asked respondents about their education and work plans, community characteristics, family structure, attitudes and opinions, school characteristics, grade point average, credits earned, and financial assistance for postsecondary education. After NLS, NCES sponsored two other major longitudinal studies: High School and Beyond, and the National Education Longitudinal Study of 1988.

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National Postsecondary Student Aid Study

NCES conducted the National Postsecondary Student Aid Study (NPSAS) for the first time during the 1986–87 school year. This survey established the first comprehensive student financial aid database. Data were gathered from 1,074 postsecondary institutions and approximately 60,000 students and 14,000 parents. These data provided information on the cost of postsecondary education, the distribution of financial aid, the characteristics of both aided and nonaided students and their families, and the nature of aid packages.

In response to the continuing need for these data, NCES conducted the second, third, and fourth cycles of NPSAS in the 1989–90, 1992–93, and 1995–96 school years.

The 1990 in-school sample involved approximately 70,000 students selected from registrar lists of enrollees at 1,200 postsecondary institutions. The 1993 sample was taken from 77,000 students at 1,000 postsecondary institutions, and the 1996 sample involved 50,000 students enrolled at 850 postsecondary institutions. The sample included both aided and nonaided students. Student information such as field of study, education level, and attendance status (part time or full time) was obtained from registrar records. Types and amounts of financial aid and family financial characteristics were abstracted from school financial aid records. Also, approximately 16,000 parents of students were sampled in 1990; 12,500 parents were sampled in 1993; and 8,800 parents were selected for participation in 1996. Data on family composition and parent financial characteristics also were compiled. Students enrolled in postsecondary education for the first time in 1989–90 served as the base for BPS. Students who received a bachelor's degree in 1992–93 served as the base for B&B, and students who began their postsecondary education in 1995–96 served as the base for BPS:96.

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National Study of Postsecondary Faculty

The National Study of Postsecondary Faculty (NSOPF-88) was a comprehensive survey of higher education instructional faculty in the fall of 1987. It was the first such survey conducted since 1963, and it gathered information regarding the backgrounds, responsibilities, workloads, salaries, benefits, and attitudes of both full- and part-time instructional faculty and staff in 2- and 4-year institutions under both public and private control. In addition, information was gathered from institutional and department-level respondents on such issues as faculty composition, new hires, departures and recruitment, retention, and tenure policies.

There were three major components of the study: a survey of institutional-level respondents at a stratified random sample of 480 U.S. colleges and universities; a survey of a stratified random sample of 3,029 eligible department chairpersons (or their equivalent) within the participating 4-year institutions; and a survey of a stratified random sample of 11,013 eligible faculty members within the participating institutions. Response rates for the three surveys were 88 percent, 80 percent, and 76 percent, respectively.

The universe of institutions from which the sample was selected was all accredited nonproprietary U.S. postsecondary institutions that grant a 2-year (associate's) or higher degree and whose accreditation at the higher education level is recognized by the U.S. Department of Education. This includes religious, medical, and other specialized postsecondary institutions as well as 2- and 4-year nonspecialized institutions. According to the 1987 IPEDS, this universe comprised 3,159 institutions. The universe does not include proprietary 2- and 4-year institutions or less-than-2-year postsecondary institutions.

The second cycle of NSOPF, conducted in 1992–93, was limited to surveys of faculty and institutions, but with a substantially expanded sample of 974 public and private nonproprietary higher education institutions and 31,354 faculty. Unlike NSOPF-88, which was limited to faculty whose regular assignment included instruction, the faculty universe for NSOPF-93 was expanded to include anyone who was designated as faculty, whether or not their responsibilities included instruction. Under this definition, researchers and administrators and other institutional staff who hold faculty positions but who do not teach were included in the sample. The definition of the institution universe for NSOPF-93 was identical to the one used in NSOPF-88.

For additional information about NSOPF, contact:

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National Center for Education Statistics
555 New Jersey Avenue, NW
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Postsecondary Education Quick Information System

NCES established the Postsecondary Education Quick Information System (PEQIS) to collect timely data on focused issues needed for program planning and policy development with a minimum burden on respondents. In addition to obtaining information on emerging issues quickly, PEQIS surveys are also used to assess the feasibility of developing large-scale data collection efforts on a given topic or to supplement other NCES postsecondary surveys.

The PEQIS panel is a nationally representative sample of approximately 1,500 2-year and 4-year postsecondary institutions in the United States. The panel consists of all types of postsecondary institutions at the 2-year and 4-year level, including universities, baccalaureate colleges, community colleges, trade and technical schools, and other postsecondary schools. PEQIS also includes a supplementary panel of less-than-2-year institutions. Depending on the topic of the survey, questionnaires either are sent to all institutions in the PEQIS panel, or to a subsample of the institutions, for example, institutions designated as higher education institutions.

For more information on PEQIS, contact:

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National Center for Education Statistics
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Projections of Education Statistics

Since 1964, NCES has published *Projections of Education Statistics,* a report that shows projections of key statistics for elementary and secondary schools and institutions of higher education. Data are included for enrollments, classroom teachers, high school graduates, earned degrees conferred, and expenditures. *Projections* includes several alternative projection series and a methodology section describing the techniques and assumptions used to prepare them. Data in this edition of *The Condition of Education* reflect the middle alternative projection series only.

For additional information about projection methodology and accuracy, contact:

Debra E. Gerald
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National Center for Education Statistics
555 New Jersey Avenue, NW
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Recent College Graduates Study

NCES has conducted periodic surveys of individuals, about 1 year after graduation, to collect information on college outcomes. The Recent College Graduates (RCG) surveys have concentrated on those graduates entering the teaching profession. To obtain accurate results on this smaller subgroup, graduates who are newly qualified to teach have been oversampled in each of the surveys.

The 1976 survey of 1974–75 college graduates was the first and smallest in the series. The sample consisted of 209 schools, of which 200 (96 percent) responded. Of the 5,506 graduates in the sample, 4,350 responded, for a response rate of 79 percent.

The 1981 survey was larger, with 301 institutions and 15,852 graduates. Responses were obtained from 286 institutions, for an institutional response rate of 95 percent, and from 9,312 graduates (716 others were determined to be out of scope), for a response rate of 62 percent. The 1985 survey requested data from 18,738 graduates from 404 colleges. Responses were obtained from 13,200 students, for a response rate of 74 percent (885 were out of scope). The response rate for the colleges was 98 percent.

The 1987 survey form was sent to 21,957 graduates. Responses were received from 16,878, for a response rate of 79.7 percent. The *1987 Transcript Study* collected transcripts for each student who was part of the 1987 sample. The 1991 survey sampled 18,135 graduates and 400 institutions. The response rates were 95 percent for the institutions and 83 percent for the graduates.

For additional information about RCG, contact:

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555 New Jersey Avenue, NW
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Schools and Staffing Survey

The Schools and Staffing Survey (SASS) provides national- and state-level data on schools, principals, teachers and districts for public schools. In addition SASS provides national-level data on schools, principals, and teachers. The survey monitors teacher supply and demand conditions, school policies and programs, characteristics and qualifications of teachers and principals, and the general status of teaching and schooling. A proportion of the survey is devoted to school libraries and media centers as well as school librarians.

SASS is a multilevel linked set of surveys that allows comparison between public and private schools and linkages of teachers and principals to their schools and school districts. There are four components: the Teacher Demand and Shortage Survey, the Principal Survey, the School Survey, and the Teacher Survey. In the year following each SASS, a follow-up survey of teachers is conducted to measure teacher attrition and mobility.

SASS was first conducted in the 1987–88 school year, and again in 1990–91 and 1993–94. It will be conducted again in 1999–2000. The 1993–94 SASS sample consisted of approximately 9,900 public schools, 3,300 private schools, and 5,500 public school districts associated with the public schools in the sample. From these schools, about 57,700 public school teachers and 11,500 private school teachers were sampled.

The public school sample for the 1993–94 SASS was based upon the 1991–92 school year Common Core of Data (CCD), the compilation of all the Nation's public school districts and public schools. The private school sample for the 1993–94 SASS was selected from the 1991–92 Private School Universe Survey (PSS), supplemented with list updates from states and some associations available in time for sample selections.

Public-use and restricted-use microdata files are available on CD-ROM or 9-track tape. Summary data from the 1993–94 SASS can be found in *Schools and Staffing in the United States: Selected Data for Public and Private Schools, 1993–94* (NCES 95-191). More detailed results from the 1993–94 SASS are published in *Schools and Staffing in the United States: A Statistical Profile, 1993–94* (NCES 96-124). Data by state (public sector only) are available in *SASS by State—1993–94 Schools and Staffing Survey Selected State Results* (NCES 96-312). Further information about the sample may be obtained from *1993–94 Schools and Staffing Survey: Sample Design and Estimation* (NCES 96-089). Data from previous SASS collections are published in the 1987–88 and 1990–91 *Profile* (NCES 92-120 and 93-146, respectively), as well as the 1987–88 and 1990–91 versions of the sample design report (NCES 91-127 and 93-449, respectively).

For additional information about SASS, contact:

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Office of Special Education and Rehabilitative Services
U.S. Department of Education

Annual Report to Congress on the Implementation of the Individuals with Disabilities Education Act

The Individuals with Disabilities Education Act (IDEA), formerly the Education of the Handicapped Act (EHA), requires the Secretary of Education to annually transmit to Congress a report that describes our school systems' progress in serving the Nation's disabled children. The annual report contains information on such children served by the public schools under the provisions of Part B of the IDEA and on children served in state-operated programs (SOP) for the disabled under Chapter I of the Education Consolidation and Improvement Act (ECIA). Statistics on children who receive special education and related services in various settings and on school personnel who provide such services are reported in an annual submission of data to the Office of Special Education and Rehabilitative Services (OSERS) by the 50 states, the District of Columbia, and the outlying areas. The child-count information is based on the number of disabled children who receive special education and related services on December 1 of each year for IDEA and October 1 for Chapter I of ECIA/SOP.

For more information about the *Annual Report to Congress,* contact:

Lou Danielson
Office of Special Education and
Rehabilitative Services
Office of Special Education Programs
Room 3523, Switzer Building
330 C Street, SW
Washington, DC 20202

Bureau of the Census
U.S. Department of Commerce

Current Population Survey

Current estimates of school enrollment and social and economic characteristics of students are based on data collected in the Bureau of the Census' monthly household survey of about 60,000 households, known as the Current Population Survey (CPS). The CPS covers 729 sample areas consisting of 1,973 counties, independent cities, and minor civil divisions throughout the 50 states and the District of Columbia. Up to 1993, the sample was selected from 1980 census files and is periodically updated to reflect new housing construction. In 1994, the questionnaire for the CPS was redesigned, and the computer-assisted personal interviewing (CAPI) method was implemented. In addition, the 1990 census-based population controls with adjustments for the estimated population undercount were also introduced.

The primary function of the monthly CPS is to collect data on labor force participation of the civilian noninstitutional population. (It excludes military personnel and inmates of institutions.) In October of each year, questions on school enrollment by grade and other school characteristics are asked about each member of the household.

For additional information refer to the *Current Population Reports*, Series P-20, or contact:

Education and Social Stratification Branch
Population Division
Bureau of the Census
U.S. Department of Commerce
Washington, DC 20233

School Enrollment. Each October, the CPS includes supplemental questions on the enrollment status of the population aged 3 and older. Annual reports documenting school enrollment of this population have been produced by the Bureau of the Census since 1946.

For additional information about the CPS school enrollment data, contact:

Education and Social Stratification Branch
Population Division
Bureau of the Census
U.S. Department of Commerce
Washington, DC 20233

Educational Attainment. Data on years of school completed are derived from two questions on the CPS instrument. Biennial reports documenting educational attainment are produced by the Bureau of the Census using March CPS data. Beginning with the data for March 1994, tabulations are controlled to the 1990 census. Estimates for earlier years were controlled to earlier censuses.

For additional information about educational attainment data, contact:

Education and Social Stratification Branch
Population Division
Bureau of the Census
U.S. Department of Commerce
Washington, DC 20233

Voting and Registration. In November of election years, the CPS includes supplemental questions on voting and registration within the civilian noninstitutional population. CPS voting estimates exceed counts of the actual number of votes cast. On balance, the CPS overstates voting in Presidential elections by 10–20 percent of the total number of persons reported as having voted.

Data on voter participation by social and economic characteristics of the population of voting age have been published since 1964 in *Current Population Reports,* Series P-20.

For additional information about voting and registration, contact:

Jerry T. Jennings
Population Division
Bureau of the Census
U.S. Department of Commerce
Washington, DC 20233

2. Other Organization Sources

American College Testing Program

The American College Testing (ACT) Assessment is designed to measure educational development in the areas of English, mathematics, social studies, and natural sciences. The ACT Assessment is taken by college-bound high school students, and the test results are used to predict how well students might perform in college.

Prior to the 1984–85 school year, national norms were based on a 10 percent sample of the students taking the test. Since then, national norms have been based on the test scores of all students taking the test. Moreover, beginning with 1984–85, these norms have been based on the most recent ACT scores available from students scheduled to graduate in the spring of the year in which they take the test. Duplicate test records are no longer used to produce national figures.

The 1990 ACT assessment is significantly different from previous years. Consequently, it is not possible to make direct comparisons between scores earned in 1990 and scores earned in previous years. To permit continuity in the tracking of score trends, ACT has established links between scores earned on ACT tests administered before October 1989 and scores on the new ACT.

For additional information about the ACT Assessment, contact:

The American College Testing Program
2201 North Dodge Street
P.O. Box 168
Iowa City, IA 52243

American Federation of Teachers

The American Federation of Teachers (AFT) reports national and state average salaries and earnings of teachers, other school employees, government workers, and professional employees over the past 25 years. The AFT's survey of state departments of education obtains information on minimum salaries, experienced teachers reentering the classroom, and teacher age and experience. Most data from the survey are reported as received, although some data are confirmed by telephone. These data are available in the AFT's annual report *Survey and Analysis of Salary Trends*. While serving as the primary vehicle for reporting the results of the AFT's annual survey of state departments of education, several other data sources are also used in this report.

For additional information about this survey, contact:

American Federation of Teachers
555 New Jersey Avenue, NW
Washington, DC 20001

College Entrance Examination Board

The Admissions Testing Program of the College Board comprises a number of college admissions tests, including the Preliminary Scholastic Assessment Test (PSAT), the Scholastic Assessment Test (SAT), and Advanced Placement (AP) examinations. High school students participate in the testing program as sophomores, juniors, or seniors—some more than once during these 3 years. If they have taken the tests more than once, only the most recent scores are tabulated. The PSAT and SAT report subscores in the areas of mathematics and verbal ability.

The SAT results are not representative of high school students or college-bound students nationally since the sample is self-selected. Generally, tests are taken by students who need the results to attend a particular college or university. The state totals are greatly affected by the requirements of its state colleges. Public colleges in a number of states require ACT scores rather than SAT scores. Thus, the proportion of students taking the SAT in these states is very low and is inappropriate for any comparison. In recent years, about 1 million high school students have taken the examination annually.

For additional information about the SAT, contact:

College Entrance Examination Board
Educational Testing Service
Princeton, NJ 08541

Institute for Social Research

University of Michigan, Survey Research Center
Monitoring the Future

Monitoring the Future is designed to explore changes in the values, behaviors, attitudes, and lifestyles of the Nation's youth. Measurements are taken on such topics as: attitudes, exposure, availability, and use of drugs; deviant behavior and victimization; education; and social problems. This survey has been conducted for the past 23 years under a series of investigator-initiated research grants awarded by the National Institute of Drug Abuse, which is part of the National Institutes of Health in the U.S. Department of Health and Human Services. Samples are selected to be nationally representative of all 8th-, 10th-, and 12th-graders enrolled in public and private schools in the coterminous United States.

For more information, please contact:

Institute for Social Research
University of Michigan
426 Thompson
Ann Arbor, MI 48104-2321
Telephone: (313) 764-8363
e-mail: ISR@mail.isr.umich.edu

National Education Association

Estimates of School Statistics

The National Education Association (NEA) reports revenues and expenditure data in its annual publication, *Estimates of School Statistics*. Each year the NEA prepares regression-based estimates of financial and other education statistics and submits them to the states for verification. Generally, about 30 states adjust these estimates based on their own data. These preliminary data are published by NEA along with revised data from previous years. States are asked to revise previously submitted data as final figures become available. The most recent publication contains all changes reported to the NEA. Some tables in *The Condition of Education* use revised estimates of financial data prepared by the NEA because it is the most current source. Since expenditure data reported to NCES must be certified for use in the U.S. Department of Education formula grant programs (such as Chapter I of the ECIA), NCES data are not available as soon as NEA estimates.

For additional information about this data, contact:

National Education Association—Research
1201 16th Street, NW
Washington, DC 20036

The International Association for the Evaluation of Educational Achievement

IEA Reading Literacy Study

In the period 1989–92, the International Association for the Evaluation of Educational Achievement (IEA) conducted a Reading Literacy Study in 32 systems of education. The study focused on two levels in each of these systems: 1) the grade level where most 9-year-olds were to be found; and 2) the grade level where most 14-year-olds were to be found.

To obtain comparable samples of students, multistage sampling was used in each country and schools or classes were typically drawn with a probability proportional to the size of the school or class.

Additional information is available in the IEA report, *How in the World Do Students Read?* by Warwick B. Elley.

The Third International Mathematics and Science Study

The Third International Mathematics and Science Study (TIMSS) is the largest, most comprehensive, and most rigorous international comparison of education ever undertaken. During the 1995 school year, the study tested the mathematics and science knowledge of half a million students from 41 nations at five different grade levels. At the same time, the students, their teachers, and the principals of their schools were asked to respond to questionnaires about their backgrounds and their attitudes, experiences, and practices in the teaching and learning of mathematics and science.

TIMSS is a collaborative research project sponsored by the International Association for the Evaluation of Educational Achievement (IEA). The TIMSS International Study Center is housed in the Center for the Study of Testing, Evaluation, and Educational Policy (CSTEEP) at Boston College. The TIMSS International Study Director, Albert E. Beaton, directs the international activities of the study, together with his staff at the International Study Center.

To contact the TIMSS International Study Center:

Dr. Albert Beaton
TIMSS International Study Director
CSTEEP, Campion Hall 323
Boston College
Chesnut Hill, MA 02167
Telephone: (617) 552-4521
e-mail: timss@hermes.bc.edu

Organisation for Economic Co-operation and Development

The Organisation for Economic Co-operation and Development (OECD) publishes analyses of national policies in education, training, and economics in 23 countries. The countries surveyed include: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Ireland, Italy, Japan, Luxembourg, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, United Kingdom, United States, and Yugoslavia.

Since only developed nations, mostly European, are included in OECD studies, the range of analysis is limited. However, OECD data allow for some detailed international comparisons of financial resources or other education variables to be made for this selected group of countries.

For additional information on OECD data, contact:

OECD/CERI/INES
2, rue Andre-Pascal
75775 PARIS CEDEX 16, France
Internet address:
http://www.oecd.org/els/

Glossary

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Academic support: (See Expenditures.)

Adult education: College, vocational, or occupational programs, continuing education or noncredit courses, correspondence courses and tutoring, as well as courses and other educational activities provided by employers, community groups, and other providers.

Advanced degree: Any formal degree attained after the bachelor's degree. Advanced degrees include master's degrees, doctoral degrees, and professional degrees.

Appropriations (federal funds): Budget authority provided through the congressional appropriation process that permits federal agencies to incur obligations and to make payments.

Appropriations (institutional revenues): An amount (other than a grant or contract) received from or made available to an institution through an act of a legislative body.

Associate's degree: A degree granted for the successful completion of a subbaccalaureate program of studies, usually requiring at least 2 years (or the equivalent) of full-time college-level study. This includes degrees granted in a cooperative or work-study program.

Autism: A developmental disability significantly affecting verbal and nonverbal communication and social interaction, generally evident before age 3, that adversely affects a child's educational performance. Other characteristics often associated with autism are engagement in repetitive activities and stereotyped movements, resistance to environmental change or change in daily routines, and unusual responses to sensory experiences.

Auxiliary enterprises: (See Revenues.)

Average daily attendance (ADA): The aggregate attendance of students in a school during a reporting period (normally a school year) divided by the number of days that school is in session during this period. Only days on which the students are under the guidance and direction of teachers should be considered days that school is in session.

Average daily membership (ADM): The aggregate membership of a school during a reporting period (normally a school year) divided by the number of days that school is in session during this period. Only days on which the students are under the guidance and direction of teachers should be considered days that school is in session. The average daily membership for groups of schools having varying lengths of terms is the average of the average daily memberships obtained for the individual schools.

Baccalaureate degree: (See Bachelor's degree.)

Bachelor's degree: A degree granted for the successful completion of a baccalaureate program of studies, usually requiring at least 4 years (or the equivalent) of full-time college-level study. This includes degrees granted in a cooperative or work-study program.

Bilingual education: Programs in which students with limited English proficiency are taught using their native language.

Carnegie unit: A standard of measurement used for secondary education that represents the completion of a course that meets one period per day for one year.

Catholic school: (See Orientation.)

Center-based programs: Including Head Start, nursery school, prekindergartens, day-care centers and preschools.

Cohort: A group of individuals who have a statistical factor in common, for example, year of birth.

Certificate: An award granted for the successful completion of a subbaccalaureate program of studies, which usual requires less than 2 years of full-time postsecondary study.

College: A postsecondary school that offers general or liberal arts education, usually leading to an associate's, bachelor's, master's, doctor's, or first-professional degree. Junior colleges and community colleges are included under this terminology.

Combined elementary and secondary school: A school that encompasses instruction at both the elementary and secondary levels. Examples of combined elementary and secondary school grade spans would be grades 1–12 or grades 5–12.

Comprehensive reform: Efforts to improve education for all students by establishing high content and performance standards and redesigning the various components of the educational system in a coordinated and coherent fashion to support students' learning to the standards.

Computer and information sciences: A group of instructional programs that describes computer and information sciences, including computer programming, data processing, and information systems.

Constant dollars: Dollar amounts that have been adjusted by means of price and cost indexes to eliminate inflationary factors and allow direct comparison across years.

Consumer price index (CPI): This price index measures the average change in the cost of a fixed-market basket of goods and services purchased by consumers.

Control of institutions: A classification of institutions of elementary/secondary or higher education by whether the institution is operated by publicly elected or appointed officials (public control) or by privately elected or appointed officials and derives its major source of funds from private sources (private control).

Core subjects: *A Nation at Risk* recommended that all students seeking a high school diploma be required to enroll in a core curriculum called "New Basics." The core subjects included in this plan are 4 units of English; 3 units each of science, social studies, and mathematics; and 0.5 units of computer science.

Cost of college attendance: Cost of living for students attending postsecondary institutions, including tuition and fees, books, room and board, child care, transportation, and other miscellaneous expenses.

Creating: According to the NAEP arts assessment, "Creating" refers to generating original art. This may include, but should not be limited to, the expression of a student's unique and personal ideas, feelings, and responses in the form of a visual image, a character, a written or improvised dramatic work, or the composition or improvisation of a piece of music or a dance.

Current dollars: Dollar amounts that have not been adjusted to compensate for inflation.

Current expenditures (elementary/secondary): Expenditures for the day-to-day operations of the schools. Expenditures for items lasting more than one year (such as school buses and computers) are not included in current expenditures.

Current expenditures per pupil in enrollment: (See Expenditures.)

Current-fund expenditures: (See Expenditures.)

Current-fund revenues: (See Revenues.)

Deaf-blindness: Concomitant hearing and visual impairments, the combination of which causes such severe communication and other developmental and educational problems that the student cannot be accommodated in special education programs solely for children with deafness or children with blindness.

Dependent student: A student who under federal criteria is considered to be financially dependent on his or her parents or guardians. Most full-time students are considered dependent until they are 24 years old.

Distance education: Education or training courses delivered to remote (off-campus) locations via audio, video, or computer technologies.

Doctor's degree: An earned degree carrying the title of Doctor. The Doctor of Philosophy degree (Ph.D.) is the highest academic degree and requires mastery within a field of knowledge and demonstrated ability to perform scholarly research. Other doctorates are awarded for fulfilling specialized requirements in professional fields, such as education (Ed.D.), musical arts (D.M.A.), business administration (D.B.A.), and engineering (D.Eng. or D.E.S.). Many doctor's degrees in both academic and professional fields require an earned master's degree as a prerequisite. First-professional degrees, such as M.D. and D.D.S., are not included under this heading. (See First-professional degree.)

Drill and Practice: Software that enables the user to work intensively on specific academic skills.

Dropout: The term is used to describe both the event of leaving school before graduating and the status of an individual who is not in school and who is not a graduate. Transferring schools from a public to a private school, for example, is not regarded as a dropout event. A person who drops out of school may later return and graduate, but is called a *dropout* at the time he or she left school. At the time the person returns to school, he or she is called a *stopout*. Measures to describe these often complicated behaviors include the event dropout rate (or the closely related school persistence rate), the status dropout rate, and the high school completion rate.

Educational and general expenditures: (See Expenditures.)

Educational attainment: The highest grade of regular school attended and completed.

Elementary school: A school classified as elementary by state and local practice and composed of any span of grades not above grade 8. Preschool or kindergarten is included under this heading only if it is an integral part of an elementary school or a regularly established school system.

Elementary/secondary school: As reported in this publication, includes only regular schools (i.e., schools that are part of state and local school systems, and also most not-for-profit private elementary/secondary schools, both religiously affiliated and nonsectarian). Schools not reported include subcollegiate departments of institutions of higher education, residential schools for exceptional children, federal schools for American Indians, and federal schools on military posts and other federal installations.

Employed: Includes civilian, noninstitutionalized persons who 1) worked during any part of the survey week as paid employees; worked in their own businesses, professions, or farms; or worked 15 hours or more as unpaid workers in a family-owned enterprise; or 2) who were not working but had jobs or businesses from which they were temporarily absent due to illness, bad weather, vacation, labor-management dispute, or personal reasons, whether or not they were seeking another job.

Engineering and engineering technologies: Instructional programs that describe the mathematical and natural science knowledge gained by study, experience, and practice and applied with judgment to develop ways to economically use the materials and forces of nature for the benefit of humanity. Includes programs that prepare individuals to support and assist engineers and similar professionals.

English: A group of instructional programs that describes the English language arts, including composition, creative writing, and the study of literature.

English as a Second Language (ESL): Programs that provide intensive instruction in English for students with limited English proficiency.

Enrollment: The total number of students registered in a given school unit at a given time, generally in the fall of a year.

Expected family contribution (EFC): The amount that a family is expected to pay toward meeting the costs of postsecondary attendance (both students and parents of dependent students are expected to make contributions). This amount is determined through an analysis of need (i.e., the Congressional Methodology) and is based on taxable and nontaxable income and assets as well as family size, the number of family members attending postsecondary institutions, extraordinary medical expenses, and so forth. For dependent students, the EFC consists of both a parental contribution and a separately calculated student contribution. The minimum student contribution in 1988–89 was $700 for freshmen and $900 for other undergraduates.

Expenditures: Charges incurred, whether paid or unpaid, which are presumed to benefit the current fiscal year. For elementary/secondary schools, these include all charges for current outlays plus capital outlays and interest on school debt. For institutions of higher education, these include current outlays plus capital outlays. For government, these include charges net of recoveries and other correcting transactions other than for retirement of debt, investment in securities, extension of credit, or as agency transaction. Also, government expenditures include only external transactions, such as the provision of prerequisites or other payments in kind. Aggregates for groups of governments exclude intergovernmental transactions among the governments.

> **Academic support:** This category of college expenditures includes expenditures for support services that are an integral part of the institution's primary missions of instruction, research, or public service. Includes expenditures for libraries, galleries, audio/visual services, academic computing support, ancillary support, academic administration, personnel development, and course and curriculum development.
>
> **Capital outlay:** The expenditures for property, and for buildings and alterations completed by school district staff or contractors.
>
> **Current expenditures (elementary/secondary):** The expenditures for operating local public schools, excluding capital outlay

and interest on school debt. These expenditures include such items as salaries for school personnel, fixed charges, student transportation, school books and materials, and energy costs. Beginning in 1980–81, expenditures for state administration are excluded.

Current expenditures per pupil in enrollment: Current expenditures for the regular school term divided by the total number of students registered in a given school unit at a given time, generally in the fall of a year.

Current-fund expenditures (higher education): Money spent to meet current operating costs, including salaries, wages, utilities, student services, public services, research libraries, scholarships, fellowships, auxiliary enterprises, hospitals, and independent operations. Excludes loans, capital expenditures, and investments.

Educational and general expenditures: The sum of current-fund expenditures for instruction, research, public service, academic support, student services, institutional support, operation and maintenance of plant, and awards from restricted and unrestricted funds.

Instruction: This category includes expenditures of the colleges, schools, departments, and other instructional divisions of higher education institutions, and expenditures for departmental research and public service, which are not separately budgeted. Includes expenditures for both credit and noncredit activities. Excludes expenditures for academic administration where the primary function is administration (e.g., academic deans).

Others: Other than support services and capital outlay, the sum of all other current fund expenditures for community services, nonpublic school programs, adult education, community colleges, interest on school debt, and other expenditures.

Scholarships and fellowships: This category of college expenditures applies only to money given in the form of outright grants and trainee stipends to individuals enrolled in formal course work, either for credit or not. Aid to students in the form of tuition or fee remissions is included. College work-study funds are excluded and are reported under the program in which the student is working. In the tabulations in this volume, Pell grants are not included in this expenditure category.

Support Services: The sum of current fund expenditures on student services (e.g., guidance, health), instructional services (e.g., curriculum development, staff training), general and school administration, operation and maintenance, transportation, food services, and enterprise operations.

Expenditures per pupil: Charges incurred for a particular period of time divided by a student unit of measure, such as enrollment, average daily attendance, or average daily membership.

Family income: The combined income of all family members 14 years old and older living in the household for the period of 1 year. Income includes money income from jobs; net income from business, farm, or rent; pensions; dividends; interest; social security payments; and any other money income.

Federal aid: Student financial aid provided through the federal government. This aid can either be provided by or administered by a federal agency. Federal agencies providing aid include the Department of Education, Department of Health and Human Services, Department of Defense, Veterans Administration, and the National Science Foundation. Federal aid can be in the form of grants, loans, and work-study aid.

Federal funds: Amounts collected and used by the federal government for the general purposes of the government. There are four types of federal fund accounts: the general fund, special funds, public enterprise funds, and intragovernmental funds. The major federal fund is the general fund, which is derived from general taxes and borrowing. Federal funds also include certain earmarked collections, such as those generated by and used to finance a continuing cycle of business-type operations.

First-professional degree: A degree that signifies both completion of the academic requirements for beginning practice in a given profession and a level of professional skill beyond that normally required for a bachelor's degree. This degree is usually based on a program requiring at least 2 academic years of work prior to entrance and a total of at least 6 academic years of work to complete the degree program, including both prior-required college work and the professional program itself.

By NCES definition, first-professional degrees are awarded in the fields of dentistry (D.D.S or D.M.D.), medicine (M.D.), optometry (O.D.), osteopathic medicine (D.O.), pharmacy (D.Phar.), podiatric medicine (D.P.M.), veterinary medicine (D.V.M.), chiropractic (D.C. or D.C.M.), law (J.D.), and theological professions (M.Div. or M.H.L.).

First-time teachers: Individuals who are teaching full time in the Nation's school system for the first time. These teachers include recent college graduates, former substitute teachers, or individuals who had other jobs besides teaching either inside or outside the field of education.

Fiscal year: The yearly accounting period for the federal government, which begins on October 1 and ends on the following September 30. The fiscal year is designated by the calendar year in which it ends; for example, fiscal year 1992 begins on October 1, 1991, and ends on September 30, 1992. (From fiscal year 1844 to fiscal year 1976 the fiscal year began on July 1 and ended on the following June 30.)

Foreign languages: A group of instructional programs that describes the structure and use of language that is common or indigenous to individuals of the same community or nation, the same geographical area, or the same cultural traditions. Programs cover such features as sound, literature, syntax, phonology, semantics, sentences, prose, and verse, as well as the development of skills and attitudes used in communicating and evaluating thoughts and feelings through oral and written language.

Free lunch eligibles: The National School Lunch Program's assistance program for low-income children. Families with school-age children who fall below the poverty level and have no other significant assets are eligible to receive government assistance in the form of free or reduced-price school lunches.

Full-time enrollment: The number of students enrolled in higher education courses with a total credit load equal to at least 75 percent of the normal full-time course load.

Full-time-equivalent (FTE) enrollment: For institutions of higher education, enrollment of full-time students, plus the full-time equivalent of part-time students as reported by institutions. In the absence of an equivalent reported by an institution, the FTE enrollment is estimated by adding one-third of part-time enrollment to full-time enrollment.

Full-time instructional faculty: Those members of the instruction / research staff who are employed full time as defined by the institution, including faculty with released time for research and faculty on sabbatical leave. The full-time category excludes faculty who are employed to teach less than two semesters, three quarters, two trimesters, or two 4-month sessions; replacements for faculty on sabbatical leave or those on leave without pay; faculty for preclinical and clinical medicine; faculty who are donating their services; faculty who are members of military organizations and who are paid on a different pay scale from civilian employees; academic officers whose primary duties are administrative; and graduate students who assist in the instruction of courses.

Full-time worker: One who is employed for 35 or more hours per week, including paid leave for illness, vacation, and holidays. Hours may be reported either for a survey reference week, or for the previous calendar year, in which case they refer to the usual hours worked.

GED recipient: A person who has obtained certification of high school equivalency by meeting state requirements and passing an approved exam, which is intended to provide an appraisal of the person's achievement or performance in the broad subject matter areas usually required for high school graduation. (See General Educational Development Test.)

General Educational Development (GED) Test: A test administered by the American Council on Education as the basis for awarding a high school equivalency certification.

Geographic region: 1) The four regions used by the Bureau of Economic Analysis of the U.S. Department of Commerce, the National Assessment of Educational Progress, and the National Education Association (NEA) are as follows (note that the NEA designated the Central region as the Middle region in its classification):

Northeast	*Southeast*
Connecticut	Alabama
Delaware	Arkansas
District of Columbia	Florida
Maine	Georgia

Maryland
Massachusetts
New Hampshire
New Jersey
New York
Pennsylvania
Rhode Island
Vermont

Central (Middle)
Illinois
Indiana
Iowa
Kansas
Michigan
Minnesota
Missouri
Nebraska
North Dakota
Ohio
South Dakota
Wisconsin

Kentucky
Louisiana
Mississippi
North Carolina
South Carolina
Tennessee
Virginia
West Virginia

West
Alaska
Arizona
California
Colorado
Hawaii
Idaho
Montana
Nevada
New Mexico
Oklahoma
Oregon
Texas
Utah
Washington
Wyoming

2) The regions used by the Bureau of the Census in Current Population Survey (CPS) tabulations are as follows:

Northeast
(New England)
Maine
New Hampshire
Vermont
Massachusetts
Rhode Island
Connecticut

(Middle Atlantic)
New York
New Jersey
Pennsylvania

Midwest
(East North Central)
Ohio
Indiana
Illinois
Michigan
Wisconsin

(West North Central)
Minnesota
Iowa
Missouri
North Dakota
South Dakota
Nebraska
Kansas

South
(South Atlantic)
Delaware
Maryland
District of Columbia
Virginia
West Virginia
North Carolina
South Carolina
Georgia
Florida
(East South Central)
Kentucky
Tennessee
Alabama
Mississippi

(West South Central)
Arkansas
Louisiana
Oklahoma
Texas

West
(Mountain)
Montana
Idaho
Wyoming
Colorado
New Mexico
Arizona
Utah
Nevada

(Pacific)
Washington
Oregon
California
Alaska
Hawaii

Government appropriation: An amount (other than a grant or contract) received from or made available to an institution through an act of a legislative body.

Government grant or contract: Revenues from a government agency for a specific research project or other program.

Graduate: An individual who has received formal recognition for the successful completion of a prescribed program of studies.

Graduate Record Examination (GRE): Multiple-choice examinations administered by the Educational Testing Service (ETS) and taken by applicants who plan to attend certain graduate schools. Two generalized tests are offered, plus specialized tests in a variety of subject areas. Ordinarily, a student will take only the specialized test that applies to the intended field of study.

Grants: Also known as scholarships, these are funds for postsecondary education that do not have to be repaid.

Gross Domestic Product (GDP): Gross national product less net property income from abroad. Both gross national product and gross domestic product aggregate only the incomes of residents of a nation, corporate and individual, derived directly from the current production of goods and services. However, gross national product also includes net property from abroad. (See also Gross National Product.)

Gross National Product (GNP): A measure of the money value of the goods and services available to the nation from economic activity. GNP can be viewed in terms of expenditure categories, which include purchases of goods and services by consumers and government, gross private domestic investment, and net exports of goods and services. The goods and services included are largely those bought for final use (excluding illegal transactions) in the market economy. A number of inclusions, however, represent imputed values, the most important of which is rental value of owner-occupied housing. GNP, in this broad context, measures the output attributable to the factors of production, labor, and property supplied by U.S. residents.

Group of Seven (G-7): This group is composed of seven industrialized nations with large economies: Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States.

Guidance counselor: (See Staff, elementary/secondary education.)

Hearing impairments: An impairment in hearing, whether permanent or fluctuating, that adversely affects a child's educational performance, in the most severe case because the child is impaired in processing linguistic information through hearing.

High school: A secondary school offering the final years of high school work necessary for graduation, usually including grades 10, 11, 12 (in a 6-3-3 plan) or grades 9, 10, 11, and 12 (in a 6-2-4 plan).

High school program: A program of studies designed to prepare students for their postsecondary education and occupation. Four types of programs are usually distinguished as academic, vocational, general, and personal use. An academic program is designed to prepare students for continued study at a college or university. A vocational program is designed to prepare students for employment in one or more semiskilled, skilled, or technical occupations. A general program is designed to provide students with the understanding and competence to function effectively in a free society, and usually represents a mixture of academic and vocational components. A personal use program provides a student with general skills in areas such as health, religion, and military science.

Higher education: Study beyond secondary school at an institution that offers programs terminating in an associate's, bachelor's, or higher degree.

Higher education institutions (general definition): Institutions providing education above the instructional level of the secondary schools, usually beginning with grade 13. Typically, these institutions include colleges, universities, graduate schools, professional schools, and other degree-granting institutions.

Higher education price index: A price index that measures average changes in the prices of goods and services purchased by colleges and universities through current-fund education and general expenditures (excluding expenditures for sponsored research and auxiliary enterprises).

Humanities: Instructional programs in the following fields: area and ethnic studies, foreign languages, letters, liberal/general studies, multi/interdisciplinary studies, philosophy and religion, theology, and the visual and performing arts.

Independent operations: A group of self-supporting activities under the control of a college or university. For purposes of financial surveys conducted by the National Center for Education Statistics, this category is composed principally of federally funded research and development centers (FFRDC).

Inflation: An upward movement in general price levels that results in a decline of purchasing power.

Institutional support: The category of higher education expenditures that includes day-to-day operational support for colleges, excluding expenditures for physical plant operations. Examples of institutional support include general administrative services, executive direction and planning, legal and fiscal operations, and community relations.

Instruction: (See Expenditures.)

Instructional expenditures (elementary/secondary): Current expenditures for activities directly associated with the interaction between teachers and students. These include teacher salaries and benefits, supplies (such as textbooks), and purchased instructional services.

Instructional staff: Full-time-equivalent number of positions, not the number of different individuals occupying the positions during the school year. In local schools, includes all public elementary and secondary (junior and senior high) day-school positions that are in the nature of teaching or in the improvement of the teaching-learning situation. Includes consultants or supervisors of instruction, principals, teachers, guidance personnel, librarians, psychological personnel, and other instructional staff. Excludes administrative staff, attendance personnel, clerical personnel, and junior college staff.

International Standard Classification of Education (ISCED) levels: The International Standard Classification of Education (ISCED) was designed as an instrument for presenting statistics on education internationally. Many countries report education statistics to UNESCO and the Organisation for Economic Co-operation and Development (OECD) using the ISCED. In this classification system, education is divided into several levels. The levels that follow are presented in *The Condition of Education.*

Education preceding the first level (early childhood education) where it is provided, usually begins at age 3, 4, or 5 (sometimes earlier) and lasts from 1–3 years. For the United States, this would be mostly nursery schools and kindergarten classes.

Education at the first level (primary education) usually begins at age 5, 6, or 7 and lasts for about 5 or 6 years. For the United States, the first level starts with grade 1 and ends with grade 6.

Education at the second level (lower secondary education) begins at about age 11 or 12 and lasts for about 3 years. For the United States, the second level starts with grade 7 and ends with grade 9.

Education at the third level (upper secondary education) begins at about age 14 or 15 and lasts for approximately 3 years. For the United States, the third level starts with grade 10 and ends with grade 12.

Education at the fifth level (nonuniversity higher education) is provided at community colleges, vocational-technical colleges, and other degree-granting institutions in which programs typically take 2 years or more, but less than 4 years to complete.

Education at the sixth level (university higher education) is provided in undergraduate programs at 4-year colleges and universities in the United States and, generally, at universities in other countries. Completing education at the third level (upper secondary education) is usually required as a minimum condition for admission. Admission is competitive in most cases.

Education at the seventh level (graduate and professional higher education) is provided in graduate and professional schools that generally require a university diploma as a minimum condition for admission.

Education at the ninth level (undistributed) is a classification reserved for enrollments, expenditures, or programs that cannot be unambiguously assigned to one of the aforementioned levels. Some countries, for example, assign nongraded special education or recreational nondegree adult education programs to this level. Other countries assign nothing to this level, preferring instead to allocate enrollments, expenditures, and programs to levels as best they can.

Kindergarten: Includes transitional kindergarten, kindergarten, and pre-first-grade students.

Labor force: Individuals employed as civilians, unemployed, or in the armed services during the survey week. The "civilian labor force" is composed of all civilians classified as employed or unemployed. (See Employed and Unemployed.)

Life sciences: Life sciences are instructional programs that describe the systematic study of living organisms. Life sciences include biology, biochemistry, biophysics, and zoology.

Limited-English-proficient: A concept developed to assist in identifying those language-minority students (children from language backgrounds other than English) who need language assistance services, in their own language or in English, in the schools. The Bilingual Education Act, reauthorized in 1988 (P.L. 100-297), describes a limited-English-proficient (LEP) student as one who

1) meets one or more of the following conditions:
   a) a student who was born outside the United States or whose native language is not English;
   b) a student who comes from an environment where a language other than English is dominant; or
   c) a student who is an American Indian or Alaskan Native and comes from an environment where a language other than English has had a significant impact on his/her level of English language proficiency; and

2) has sufficient difficulty speaking, reading, writing, or understanding the English language to deny him or her the opportunity to learn successfully in English-only classrooms.

Many ways of making this determination about an individual students' English proficiency are being used by school systems across the United States. These include various combinations of home language surveys, informal teacher determination, formal interviews, and a number of types of assessment tests for classification, placement, and monitoring of progress.

Loan: Borrowed money that must be repaid.

Local education agency (LEA): (See School district.)

Master's degree: A degree awarded for successful completion of a program generally requiring 1 or 2 years of full-time college-level study beyond the bachelor's degree. One type of master's degree, including the Master of Arts degree, or M.A., and the Master of Science degree, or M.S., is awarded in the liberal arts and sciences for advanced scholarship in a subject field or discipline and demonstrated ability to perform scholarly research. A second type of master's degree is awarded for the completion of a professionally oriented program, for example, an M.Ed. in education, an M.B.A. in business administration, an M.F.A. in fine arts, an M.M. in music, an M.S.W. in social work, and an M.P.A. in public administration. A third type of master's degree is awarded in professional fields for study beyond the first-professional degree, for example, the Master of Laws (LL.M.) and Master of Science in various medical specializations.

Mathematics: A group of instructional programs that describes the science of logical symbolic language and its applications.

Mental retardation: Significantly subaverage general intellectual functioning existing concurrently with deficits in adaptive behavior and manifested during the developmental period that adversely affects a child's educational performance.

Metropolitan population: The population residing in metropolitan statistical areas (MSAs). (See Metropolitan Statistical Area.)

Metropolitan Statistical Area (MSA): A large population nucleus and the nearby communities that have a high degree of economic and social integration with that nucleus. Each MSA consists of one or more entire counties (or county equivalents) that meet specified standards pertaining to population, commuting ties, and metropolitan character. In New England, towns and cities, rather than counties, are the basic units. MSAs are designated by the Office of Management and Budget. An MSA includes a city and, generally, its entire urban area and the remainder of the county or counties in which the urban area is located. An MSA also includes such additional outlying counties that meet specified criteria relating to metropolitan character and level of commuting of workers into the central city or counties. Specified criteria governing the definition of MSAs recognized before 1980 are published in *Standard Metropolitan Statistical Areas: 1975*, issued by the Office of Management and Budget. New MSAs were designated when 1980 and 1990 counts showed that they met one or both of the following criteria:

1) Included a city with a population of at least 50,000 within their corporate limits; or

2) Included a Census Bureau-defined urbanized area (which must have a population of at least 50,000) and a total MSA population of at least 100,000 (or, in New England, 75,000).

Minority: Any racial–ethnic group that is nonwhite and not Hispanic is considered minority. (See Racial–ethnic group.)

Modal grade: The modal grade is the year of school in which the largest proportion of students of a given age are enrolled. Enrolled persons are classified according to their relative progress in school; that is, whether the grade or year in which they were enrolled was below, at, or above the modal (or typical) grade for persons of their age at the time of the survey.

Multiple disabilities: concomitant impairments (such as mental retardation-blindness, mental retardation-orthopedic impairment, etc.), the combination of which causes such severe educational problems that they cannot be accommodated in special education programs solely for one of the impairments. The term does not include deaf-blindness.

A Nation at Risk: A report published by the U.S. Department of Education in 1983 highlighting deficiencies in knowledge of the Nation's students and population as a whole in areas such as literacy, mathematics, geography, and basic science.

National Council of Teachers of Mathematics' (NCTM) Curriculum and Evaluation Standards for School Mathematics: In 1989, in response to the call for reform in the teaching and learning of mathematics, the NCTM's Commission on Standards for School Mathematics was established to develop the Curriculum and Evaluation Standards for School Mathematics. The purpose of these standards was to create a coherent vision of what it means to be mathematically literate and to create a set of standards to guide the revision of the school mathematics curriculum and its associated evaluation toward this vision.

Natural sciences: A group of fields of study that includes the life sciences, physical sciences, and mathematics.

Nonmetropolitan residence group: The population residing outside metropolitan statistical areas. (See Metropolitan statistical area.)

Nonsupervisory instructional staff: Persons such as curriculum specialists, counselors, librarians, remedial specialists, and others possessing education certification but not responsible for the day-to-day teaching of the same group of pupils.

Nontenure-track faculty: Faculty members who were either not on the tenure track or whose faculty status lacked a tenure system at the sampled institution.

Nursery school: (See Preprimary.)

Obligations: Amounts of orders placed, contracts awarded, services received, or similar legally binding commitments made by federal agencies during a given period that will require outlays during the same or some future period.

Orientation (private school): The group or groups, if any, with which a private elementary/secondary school is affiliated, or from which it derives subsidy or support. Such organizations include the following:

Catholic school: A private school over which a Roman Catholic church group exercises some control or provides some form of subsidy. Catholic schools for the most part include those operated or supported by: a parish, a group of parishes, a diocese, or a Catholic religious order.

Other religious school: A private school that is affiliated with an organized religion or denomination other than Roman Catholicism or that has a religious orientation other than Catholicism in its operation and curriculum.

Nonsectarian school: A private school whose curriculum and operation are independent of religious orientation and influence in all but incidental ways.

Orthopedic impairments: A severe orthopedic impairment that adversely affects a child's educational performance. The term includes impairments caused by congenital anomaly (e.g., clubfoot, absence of some member, etc.), impairments caused by disease (e.g., poliomyelitis, bone tuberculosis, etc.), and impairments from other causes (e.g., cerebral palsy, amputations, and fractures or burns that cause contractures).

Other health impairments: Having limited strength, vitality or alertness, due to chronic or acute health problems such as a heart condition, tuberculosis, rheumatic fever, nephritis, asthma, sickle cell anemia, hemophilia, epilepsy, lead poisoning, leukemia, or diabetes that adversely affects a child's educational performance.

Other technical/professional fields: A group of occupationally oriented fields, other than business, computer science, education, and engineering, which includes agriculture and agricultural sciences, architecture, communications, communications technologies, home economics, law, library and archival sciences, military sciences, parks and recreation, protective services, and public affairs.

Outlays: The value of checks issued, interest accrued on the public debt, or other payments made, net of refunds and reimbursements.

Parent: In the Current Population Survey, a parent is defined as a biological, adoptive, step, or foster parent, or a legal guardian. In other words, "parents" have some biological or legal association to the child. A parent is not necessarily the head of the household. A parent's highest education level was determined by merging information from the parent's record with information from his or her children's record. When no parent resided in the household, information from the legal guardian's record was merged with information from the children's record.

Part-time enrollment: The number of students enrolled in higher education courses with a total credit load less than 75 percent of the normal full-time credit load.

Part-time worker: One who is employed for 1–34 hours a week, including paid leave for illness, vacation, and holidays. Hours may be reported either for a survey reference week, or for the previous calendar year, in which case they refer to the usual hours worked.

Part-year worker: One who was employed at least 1 week but fewer than 50 weeks during the previous calendar year, including paid leave for illness, vacation, or other reasons.

Percentile (score): A value on a scale of zero to 100 that indicates the percent of a distribution that is equal to or below it. For example, a score in the 95th percentile is a score equal to or better than 95 percent of all other scores.

Performing: According to the NAEP arts assessment, "Performing" means performing an existing work, a process that calls upon the interpretive or re-creative skills of the student. Typically, "performing" and existing work does not apply to the visual arts, where reproducing an artist's existing work is not central. However, it does suggest the engagement and motivation involved in creating a work of art.

Personal income: Current income received by persons from all sources minus their personal contributions for social insurance. Classified as "persons" are individuals (including owners of unincorporated firms), nonprofit institutions serving individuals, private trust funds, and private noninsured welfare funds. Personal income includes transfers (payments not resulting from current production) from government and business such as social security benefits and military pensions, but excludes transfers among persons.

Physical sciences: Physical sciences are instructional programs that describe inanimate objects, processes, or matter, energy, and associated phenomena. Physical sciences include astronomy, astrophysics, atmospheric sciences, chemistry, geology, physics, planetary science, and science technologies.

Portfolio: A collection of student-generated artifacts. Portfolios are used to provide evidence over a period of time about the range and extent of a student's performance and growth.

Postsecondary education: The provision of formal instructional programs with a curriculum designed primarily for students who have completed the requirements for a high school diploma or equivalent. This includes programs of an academic, vocational, and continuing professional education purpose, and excludes vocational and adult basic education programs.

Poverty level: Poverty status is based on reports of family income on the March Current Population Survey. Families or individuals with gross incomes below the poverty threshold are classified as below the poverty level. Poverty thresholds in 1992 ranged from $7,143 for a person living alone to $28,745 for a family of four or more.

Prekindergarten: (See Preprimary.)

Preprimary: Elementary education programs for children who are too young for first grade. Includes center-based programs and kindergarten.

Private school or institution: A school or institution that is controlled by an individual or agency other than a state, a subdivision of a state, or the federal government, which is usually not supported primarily by public funds, and is not operated by publicly elected or appointed officials.

Proprietary institution: An educational institution that is under private control but whose profits derive from revenues subject to taxation.

Purchasing Power Parity (PPP) Indices: Purchasing Power Parity (PPP) exchange rates, or indices, are the currency exchange rates that equalize the purchasing power of different currencies, meaning that when a given sum of money is converted into different currencies at the PPP exchange rates, it will buy the same basket of goods and services in all countries. PPP indices are the rates of currency conversion which eliminate the difference in price levels among countries. Thus, when expenditures on GDP for different countries are converted into a common currency by means of PPP indices, they are expressed at the same set of international prices, so that comparisons among countries reflect only differences in the volume of goods and services purchased.

Racial–ethnic group: Classification indicating general racial or ethnic heritage based on self-identification, as in data collected by the Bureau of the Census, or on observer identification, as in data collected by the Office for Civil Rights. These categories are in accordance with the Office of Management and Budget standard classification scheme presented:

American Indian/Alaskan Native: A person having origins in any of the original peoples of North America and maintaining cultural identification through tribal affiliation or community recognition.

Asian/Pacific Islander: A person having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands. This area includes, for example, China, India, Japan, Korea, the Philippine Islands, and Samoa.

Black: A person having origins in any of the black racial groups in Africa. In this report, normally excludes persons of Hispanic origin. Those measures that do not exclude persons of Hispanic origin are noted accordingly.

Hispanic: A person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race.

White: A person having origins in any of the original peoples of Europe, North Africa, or the Middle East. In this report, normally excludes persons of Hispanic origin. Those measures that do not exclude persons of Hispanic origin are noted accordingly.

Reasoning task: According to the Third International Mathematics and Science Study (1996), a "reasoning task" is any activity in which a student is required to: explain reasoning behind an idea; represent and analyze relationships using tables, charts or graphs; work on problems for which there is no immediately obvious method of solution; or write equations to represent relationships.

Reentrants: Teachers who left the school system for a period of time, and have now returned to classroom teaching.

Remedial course (postsecondary): Courses provided in reading, writing, or mathematics for college students lacking those skills necessary to perform college-level work at the level required by the institution; thus, what constitutes remedial courses varies from institution to institution.

Remedial education: Instruction for a student lacking the reading, writing, or mathematics skills necessary to perform college-level work at the level required by the attended institution.

Responding: According to the NAEP arts assessment, "Responding" varies from that of an audience member to the interactive response between a student and a particular medium. The response is usually a combination of affective, cognitive, and physical behavior. Responding involves a level of perceptual or observational skill; a description, analysis, or interpretation on the part of the respondent; and sometimes a judgment or evaluation based on some criteria which may be self-constructed or commonly held by a group or culture. Responding calls on higher order thinking and is central to the creative process. Although a response is usually thought of as verbal (oral or written), responses can and should also be conveyed nonverbally or in the art forms themselves. Major works of art in all traditions engage artists in a dialogue that crosses generations.

Revenues: All funds received from external sources, net of refunds, and correcting transactions. Noncash transactions such as receipt of services, commodities, or other receipts "in kind" are excluded, as are funds received from the issuance of debt, liquidation of investments, and nonroutine sale of property.

Auxiliary enterprises: This category includes those essentially self-supporting operations that exist to furnish a service to students, faculty, or staff, and that charge a fee that is directly related to, although not necessarily equal to, the cost of the service. Examples are residence halls, food services, college stores, and intercollegiate athletics.

Current-fund revenues (higher education): Money received during the current fiscal year from revenue that can be used to pay obligations currently due, and surpluses reappropriated for the current fiscal year.

Salary: The total amount regularly paid or stipulated to be paid to an individual, before deductions, for personal services rendered while on the payroll of a business or organization.

Salary workers: Any person who worked one or more days during the previous year and was paid on the basis of a yearly salary is considered a salary worker.

Scholarships and fellowships: (See Expenditures.)

Scholastic Assessment Test (SAT): An examination administered by the Educational

Testing Service and used to predict the facility with which an individual will progress in learning college-level academic subjects.

School climate: The social system and culture of the school, including the organizational structure of the school and values and expectations within it.

School district: An education agency at the local level that exists primarily to operate public schools or to contract for public school services. Synonyms are "local basic administrative unit" and "local education agency."

School year: The 12-month period of time denoting the beginning and ending dates for school accounting purposes, usually from July 1 through June 30.

Science: The body of related courses concerned with knowledge of the physical and biological world and with the processes of discovering and validating this knowledge.

Secondary school: A school that has any span of grades beginning with the next grade following an elementary or middle school (usually grade 7, 8, or 9) and ending with or below grade 12. Both junior high schools and senior high schools are included.

Serious emotional disturbance: A condition exhibiting one or more of the following characteristics over a long period of time and to a marked degree that adversely affects a child's educational performance —

1) an inability to learn that cannot be explained by intellectual, sensory, or health factors;
2) an inability to build or maintain satisfactory interpersonal relationships with peers and teachers;
3) inappropriate types of behavior or feelings under normal circumstances;
4) a general pervasive mood of unhappiness or depression; or
5) a tendency to develop physical symptoms or fears associated with personal or school problems.

The term includes schizophrenia. The term does not apply to children who are socially maladjusted, unless it is determined that they have a serious emotional disturbance.

Simulations and Applications: Software that enables the user to experience a realistic reproduction of an actual situation or enables the user to manipulate information to create documents and reports.

Social and behavioral sciences: A group of scientific fields of study that includes anthropology, archeology, criminology, demography, economics, geography, history, international relations, psychology, sociology, and urban studies.

Social studies: A group of instructional programs that describes the substantive portions of behavior, past and present activities, interactions, and organizations of people associated together for religious, benevolent, cultural, scientific, political, patriotic, or other purposes.

Socioeconomic status (SES): The SES quartile variable used for both High School and Beyond and the National Education Longitudinal Study of 1988 was built using parental education level, parental occupation, family income, and household items. Students were placed in quartiles based on their standardized composite score. By definition, one quarter of each cohort will reside in the bottom SES quartile, even if education levels, income, and the number of persons in more prestigious occupations increase. The terms high, middle, and low SES refer to the upper, middle two, and lower quartiles of the weighted SES composite index distribution.

Specific learning disabilities: A disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, that may manifest itself in an imperfect ability to listen, think, speak, read, write, spell, or to do mathematical calculations. The term includes such conditions as perceptual disabilities, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia. The term does not apply to children who have learning problems that are primarily the result of visual, hearing, or motor disabilities, of mental retardation, of emotional disturbance, or of environmental, cultural, or economic disadvantage.

Speech or language impairments: A communication disorder such as stuttering, impaired articulation, a language impairment, or a voice impairment that adversely affects a child's educational performance.

Staff assignments, elementary and secondary school:

District administrative support staff: Personnel who are assigned to the staffs of the district administrators. They may be clerks, computer programmers, and others concerned with the functioning of the entire district.

District administrators: The chief executive officers of education agencies (such as superintendents and deputies) and all others with district-wide responsibility. Such positions may be business managers, administrative assistants, coordinators, and the like.

Guidance counselors: Professional staff whose activities involve counseling students and parents, consulting with other staff members on learning problems, evaluating the abilities of students, assisting students in personal and social development, providing referral assistance, and working with other staff members in planning and conducting guidance programs for students.

Instructional (teacher) aides: Those staff members assigned to assist a teacher with routine activities associated with teaching (i.e., those activities requiring minor decisions regarding students, such as monitoring, conducting rote exercises, operating equipment, and clerking). Volunteer aides are not included in this category.

Librarians: Staff members assigned to perform professional library service activities such as selecting, acquiring, preparing, cataloging, and circulating books and other printed materials; planning the use of the library by students, teachers, and other members of the instructional staff; and guiding individuals in their use of library books and materials that are maintained separately or as part of an instructional materials center.

Other support services staff: All staff not reported in other categories. This group includes media personnel, social workers, data processors, health maintenance workers, bus drivers, security, cafeteria workers, and other staff.

School administrators: Those staff members whose activities are concerned with directing and managing the operation of a particular school. They may be principals or assistant principals, including those who coordinate school instructional activities with those of the local education agency (LEA) and other appropriate units.

Stopout: (See Dropout.)

Student membership: The number of students enrolled (at a particular school, district, or county, etc.) on or about October 1.

Subbaccalaureate degree: Award granted for the successful completion of studies at either 2-year or less-than-2-year institutions. Subbaccalaureate degrees typically include associate's degrees and certificates.

Support services expenditures (elementary/secondary): Current expenditures for activities which support instruction. These services include school building operation and maintenance, school administration, student support services, student transportation, instructional staff support, school district administration, business services, research, testing, and data processing.

Tax expenditures: Losses of tax revenue attributable to provisions of the federal income tax laws that allow a special exclusion, exemption, or deduction from gross income or provide a special credit, preferential rate of tax, or a deferral of tax liability affecting individual or corporate income tax liabilities.

Technical/professional fields: A group of occupationally oriented fields of study, other than engineering and computer science, that includes agriculture and agricultural sciences, architecture, business and management, communications, education, health sciences, home economics, law, library and archival sciences, military sciences, parks and recreation, protective services, and public affairs.

Tenure-track faculty: Faculty members who were either tenured or on the tenure track at their institution.

Title I : Title I, part of the Elementary and Secondary Education Act of 1965 (ESEA), is designed to help disadvantaged children meet challenging content and student performance standards. Part A of Title I provides financial assistance through state educational agencies to local educational agencies to meet the educational needs of children who are failing or most at risk of failing to meet a state's challenging content and student performance standards in school attendance areas and schools with high concentrations of children from low-income families and in local institutions for neglected or delinquent children.

Levels of Title I funding:

1) No Title I: Schools that do not receive Title I funds.
2) Title I nonschoolwide program: School received Title I funds, but do not operate a schoolwide program.
3) Title I schoolwide program: School receives Title I funds and operates a schoolwide program.

Total expenditure per pupil in average daily attendance: Includes all expenditures allocable to per pupil costs divided by average daily attendance. These allocable expenditures include current expenditures for regular school programs, interest on school debt, and capital outlay. Beginning in 1980–81, expenditures for state administration are excluded and expenditures for other programs (summer schools, community colleges, and private schools) are included.

Traumatic brain injury: An acquired injury to the brain caused by an external physical force, resulting in total or partial functional disability or psychosocial impairment, or both, that adversely affects a child's educational performance. The term applies to open or closed head injuries resulting in impairments in one or more areas, such as cognition; language; memory; attention; reasoning; abstract thinking; judgment; problem-solving; sensory, perceptual and motor abilities; psychosocial behavior; physical functions; information processing; and speech. The term does not imply to brain injuries that are congenital or degenerative, or brain injuries induced by birth trauma.

Tuition and fees: A payment or charge for instruction or compensation for services, privileges, or the use of equipment, books, or other goods.

Type of higher education institutions:

4-year institution: An institution legally authorized to offer and offering at least a 4-year program of college-level studies wholly or principally creditable toward a baccalaureate degree. In some tables a further division between universities and other 4-year institutions is made. A "university" is a postsecondary institution that typically comprises one or more graduate professional schools. (See also University.)

2-year institution: An institution legally authorized to offer and offering at least a 2-year program of college-level studies that terminates in an associate's degree or is principally creditable toward a baccalaureate degree.

Undergraduate students: Students registered at an institution of higher education in a program leading to a baccalaureate degree or other formal award below the baccalaureate such as an associate degree.

Unemployed: Civilians who had no employment but were available for work and 1) had engaged in any specific job-seeking activity within the past 4 weeks, 2) were waiting to be called back to a job from which they had been laid off, or 3) were waiting to report to a new wage or salary job within 30 days.

University: An institution of higher education that consists of a liberal arts college, a diverse graduate program, and usually two or more professional schools or faculties, and is empowered to confer degrees in various fields of study.

Urbanicity:

1) In the Schools and Staffing Survey, school location is categorized based on the classification in both the Common Core of Data (CCD) and the Quality Education data (QED), as drawn from U.S. Census data and definitions. The results are summarized in three variables:
    Central city: central city of an MSA (Metropolitan Statistical Area).
    Urban fringe/large town: area surrounding a central city but within a county constituting an MSA.
    Rural/small town: outside an MSA.
2) In the High School and Beyond Survey, urbanicity is classified based on the Curriculum Information Center code as follows:
    Urban: within a central city of an MSA.
    Suburban: within an MSA but outside the central city area.
    Rural: outside a designated MSA.

Visual impairments: An impairment in vision that, even with correction, adversely affects a child's educational performance. The term includes both partial sight and blindness.

Vocational education: Organized educational programs, services, and activities that are directly related to the preparation of individuals for paid or unpaid employment, or for additional preparation for a career, requiring other than a baccalaureate or advanced degree.

Work-study: A generic term for programs designed to provide part-time employment as a source of funds to pay for postsecondary education as well as a federal program that is administered through postsecondary institutions.

Year-round worker: One who was employed at least 50 weeks during the previous calendar year, including paid leave for illness, vacation, or other reasons.

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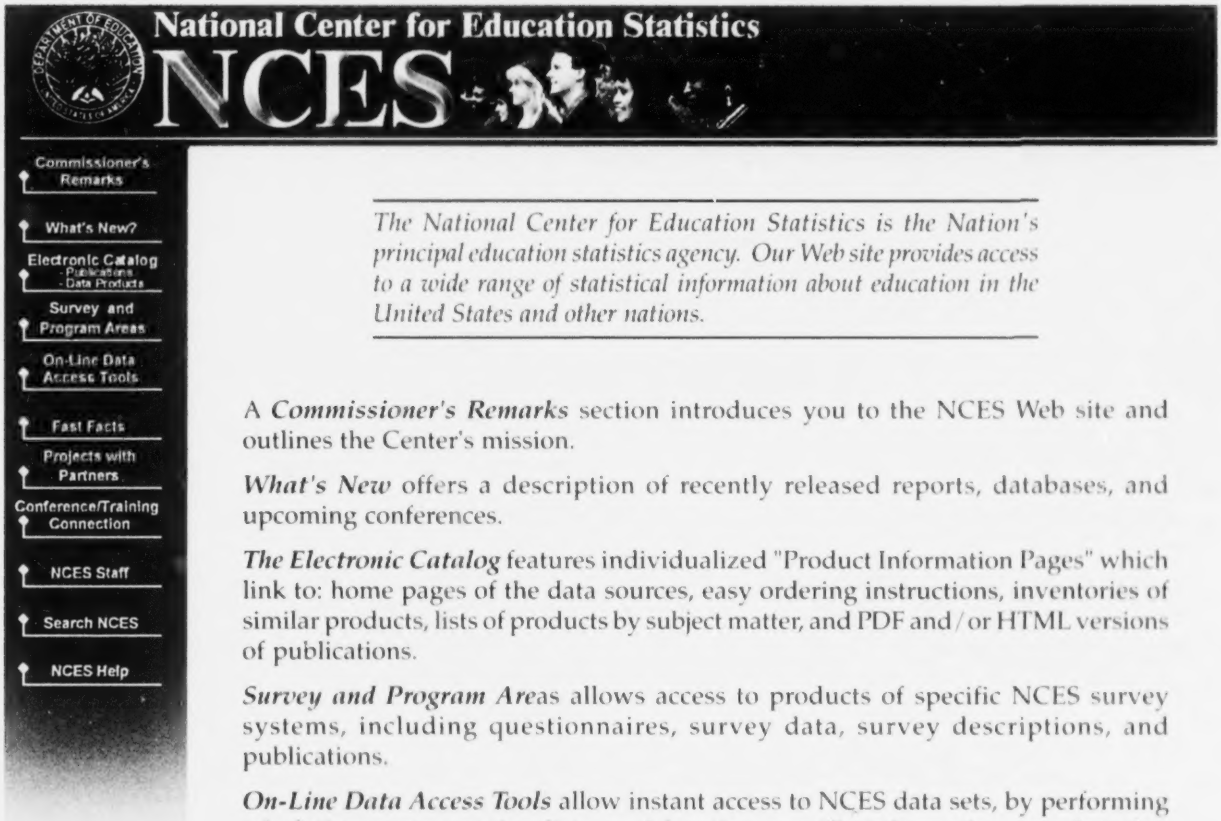
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